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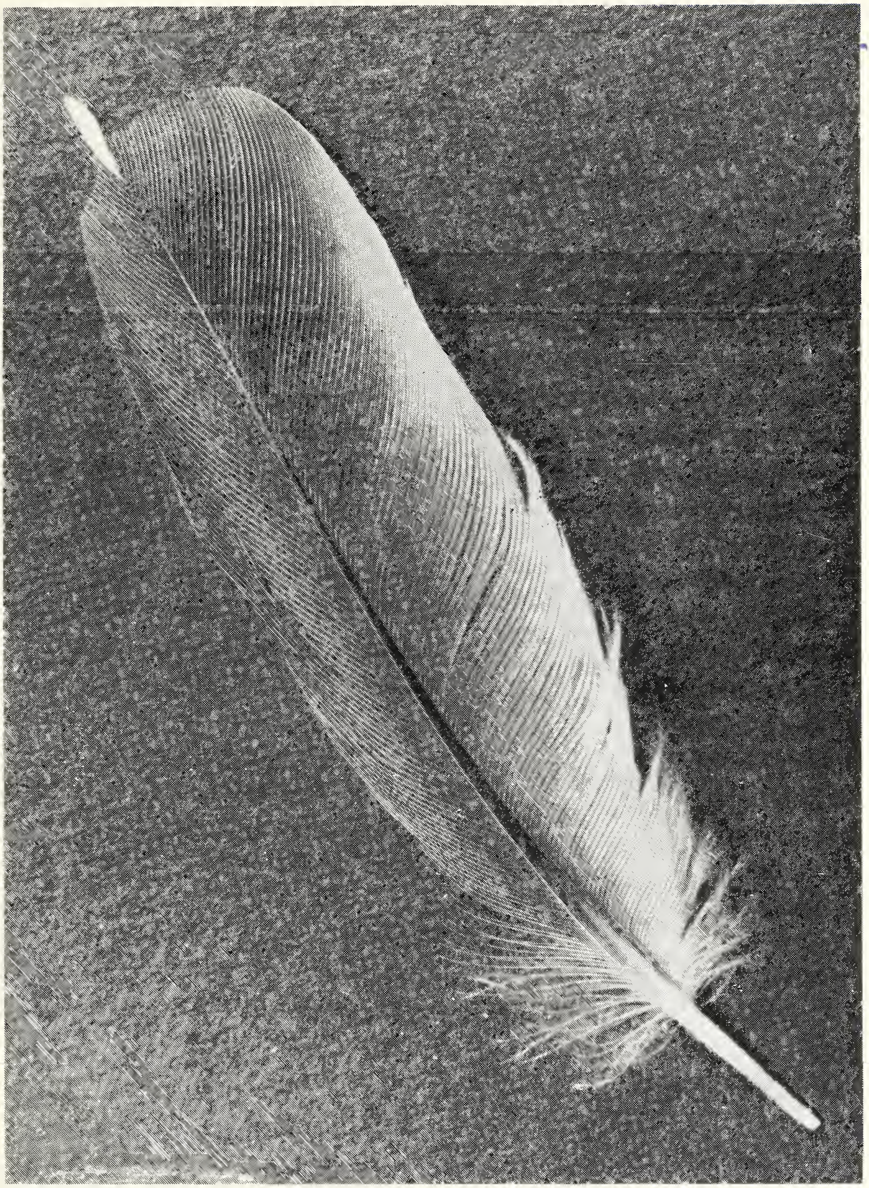

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THE CHAT

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Articles

Variation and Sexual Dimorphism of the Size of Northern Mockingbirds' White Wing Patches. *Michael J. Justice and Teresa C. Justice* 1

1997 Spring Bird Count. *Peggy B. Ferebee and H.T. Hendrickson* 12

General Field Notes

First Record of Black Guillimot in North Carolina. *J. Mark Galizio, John Hardwick, James F. Parnell* 32

Mobbing of South Polar Skua by Cory's Shearwaters Off the North Carolina Coast. *Edward S. Brinkley*... 33

Sharp-tailed Sandpiper Observed in Orangeburg County, South Carolina. The First Sight Record for South Carolina. *Robin M. Carter and Caroline M. Eastman* 38

Briefs for the Files, Summer 1997 41

Cover photo by Jimmy Wood. Cedar Waxwing feather courtesy SC Department of Natural Resources.

Variation and Sexual Dimorphism of the Size of Northern Mockingbirds' White Wing Patches

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I. Introduction

Quantitative and qualitative aspects of a visual signal are necessarily related to and constrained by numerous factors. These factors include the signal's communicative function, the natural history of the species involved, the sensory capacities of the relevant recipients, and the mechanism of signal generation. Thus, quantifying the form of and variability in a visual signal and considering these data along with natural history may provide some insight into the role of a signal in a communication system.

Northern Mockingbirds (*Mimus polyglottos*) have large white patches on dark gray wings (Fig. 1). Although the wing patches are largely hidden when perched, the behavioral contexts of their exposure suggest they function in communication. Exposure of the wing patches occurs during flight, copulation, and the execution of two displays: wing flashes (Allen 1947, Brackbill 1951, Hailman 1960, Selander and Hunter 1960) and flight displays (Derrickson and Breitwisch 1992). Wing flashes are synchronous, discontinuous, non-flight-related extensions of both wings above the horizontal. They are most often seen while the bird is foraging on the ground (Hailman 1960), but have been observed during attacks on predators as well (Hicks 1955). Flight displays are performed while singing: the bird will fly approximately 1 - 3 m upward and then slowly descend to approximately the same perch, often spiraling during both ascent and descent.

Michener (1953), using field sketches, reported that male mockingbirds are likely to have larger wing patches than females. The present study first quantified the variability and sexual dimorphism in mockingbird wing patch size, and then examined the utility of linear discriminant analysis and linear

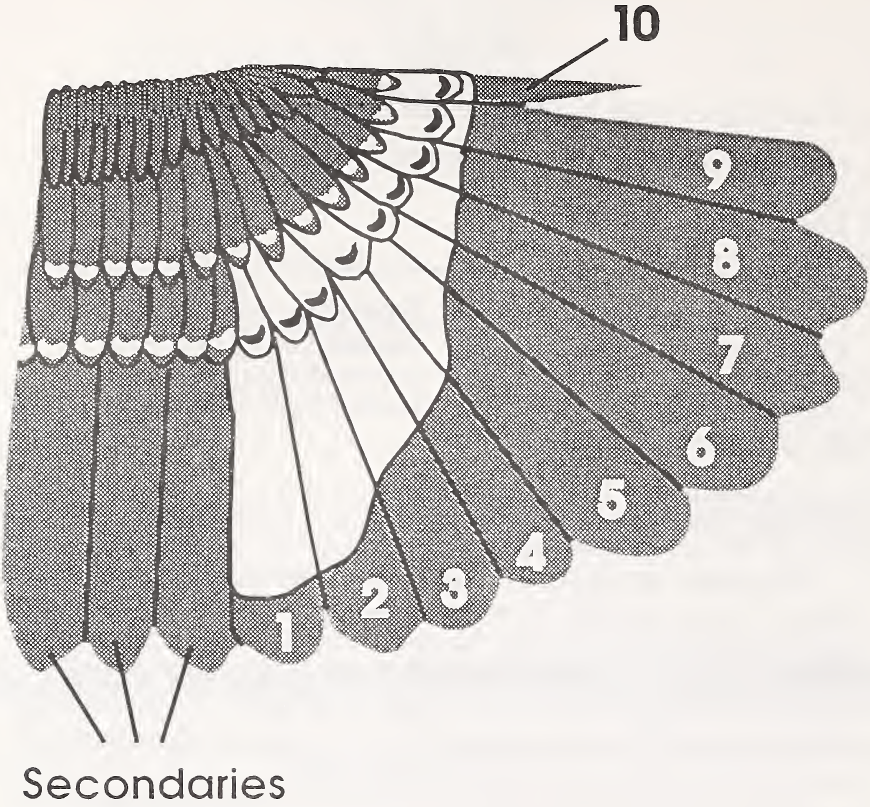

Fig. 1. Diagram of a typical mockingbird's white wing patch, dorsal view. The individual primaries are numbered.

regression to sex mockingbirds in the hand. Given the natural history of mockingbirds, a sexual dimorphism in wing patch size raises at least three possibilities concerning the signal function(s) of wing patch size. Specifically, wing patch size may be used in 1) sex recognition, 2) intersexual quality advertisement, and/or 3) predator deterrence: males may require a larger, more conspicuous badge of warning because they are the primary caretakers of older fledglings. These hypotheses will be considered where the data allow.

II. Methods

Subjects. Mockingbirds are medium-sized (45 - 60g; 21 - 27cm) oscines. Sexing through breeding-season sexually dimorphic behaviors is fairly easy: only males sing and only females incubate. The mockingbirds used in this study were trapped year round from a population of approximately 65 color-banded wild mockingbirds residing on the 72 ha suburban residential campus of The University of North Carolina at Greensboro (36°N 79°W). From routine monitoring of the population, mating status was known for most of the birds used in the study. Approximately 12% of the males are unmated at any one time (personal observation). This along with an apparent lack of unmated females during the breeding season indicates the study population is male-biased, as is found in other populations (Breitwisch 1989, Derrickson and Breitwisch 1992).

Morphometrics. Upon capture, the bird was first banded (if not already) and then the following measures were taken in the field, after which the bird was released. Not all measures were taken on all birds, and thus sample sizes vary slightly for the various measures. Each measure was taken with dial calipers to the nearest 0.10mm. The entire process took 15 - 25 minutes. Tarsometatarsus length was measured as the diagonal of the tarsometatarsus from the middle posterior point of the tibia-metatarsus joint to the center of the anterior lower edge of the most distal undivided scute (Baldwin *et al.* 1931). The length of each primary flight feather was measured as the chord of the feather from the anterior edge of the wrist joint to the tip, without flattening the natural curvature of the feather. Here, "wing length" is the chord of the longest primary, while "total wing length" is the sum of the chords for all 10 primaries.

Wing patch size was measured from the ventral surface of the left wing's primary flight feathers, without flattening their natural curvature. Each of the ten primaries is white by the wrist and dark gray distally (Fig. 2). Ventrally, the wing patch is comprised of all the white on the primaries except some near the wrist, which is covered by very light gray underwing coverts. Dorsally, the white near the wrist is obscured by dark gray coverts; the wing patch is comprised of a row of white primary coverts and the white on the primaries which extends beyond the coverts. On each individual primary, the border between the white and gray is often irregular and sometimes blurred (Michener 1953; personal observation). The amount of white on an individual feather was measured as the length of the chord from the wrist joint to the most distal point on the shaft where a line drawn perpendicular to the shaft across either the inner or outer vane did not intersect any gray area (Fig. 2). Wing patch size was computed as the sum of the lengths of white on all 10 primaries. Occasionally, primary #10 did not have any white extending beyond the underwing coverts. In those instances the amount of white was the chord of the distance from the wrist to the distal edge of the underwing coverts.

One researcher (MJJ) took all morphological measurements. Because 14 birds were captured more than once, precision of the measures could be assessed. Differences between measures were negligible. The median difference (1.0mm) represents only a 2% error on a typical measure of the amount of white on a primary (approximately 50.0mm), and the modal difference (0.2mm) was considerably smaller. Also, for all primaries measured, the first measure of the amount of white was extremely highly positively correlated with the second measure (Spearman's rho = 0.96, N = 140 pairs of measures).

Statistical Analyses. Parametric statistics were used when adequate sample sizes were available and all assumptions were met. All tests were two-tailed. The linear discriminant and linear regression analyses were performed using Minitab Release 10Xtra on a mainframe processor. All other statistics were computed either by hand or with an AST PC with an Intel 486sx microprocessor using Systat Version 5.0.

III. Results

Morphometrics. All results are in mm. Mean ± SE wing patch size for males was 546.7 ± 4.7 (N = 34; range: 479.5 - 597.1) and for females was 486.0 ± 5.0 (N = 29; range: 442.5 - 564.8). Kolmogorov-Smirnoff one-sample tests for normality indicated that wing patch size was normally distributed for both males (N = 34, $P = 0.08$) and females (N = 29, $P = 0.525$). The variance in wing patch size was the same for both sexes ($F_{33,28} = 1.04$; $P > 0.20$). Males had larger wing patch sizes than females ($t = 8.76$, df = 61, $P < 0.001$; $r^2 = 0.557$). Males known to be mated had larger wing patches than males known to be unmated (mated: 558.7 ± 6.9, N = 16; unmated: 528.0 ± 10.2, N = 5; $t = 2.25$, df = 19, $0.02 < P < 0.05$, $r^2 = 0.21$).

Descriptive statistics on the amount of white on each of the 10 primary flight feathers are presented in Table 1. For each of the 10 primaries, the amount of white was significantly greater in males (all $P < 0.001$), even with the alpha level adjusted to 0.005 to compensate for the multiple *t* tests used. The larger wing patches in males are mainly due to males having more white on primaries 1, 2, 3, and 4 (Table 1). Within males, primaries 1, 2, 3, and 4

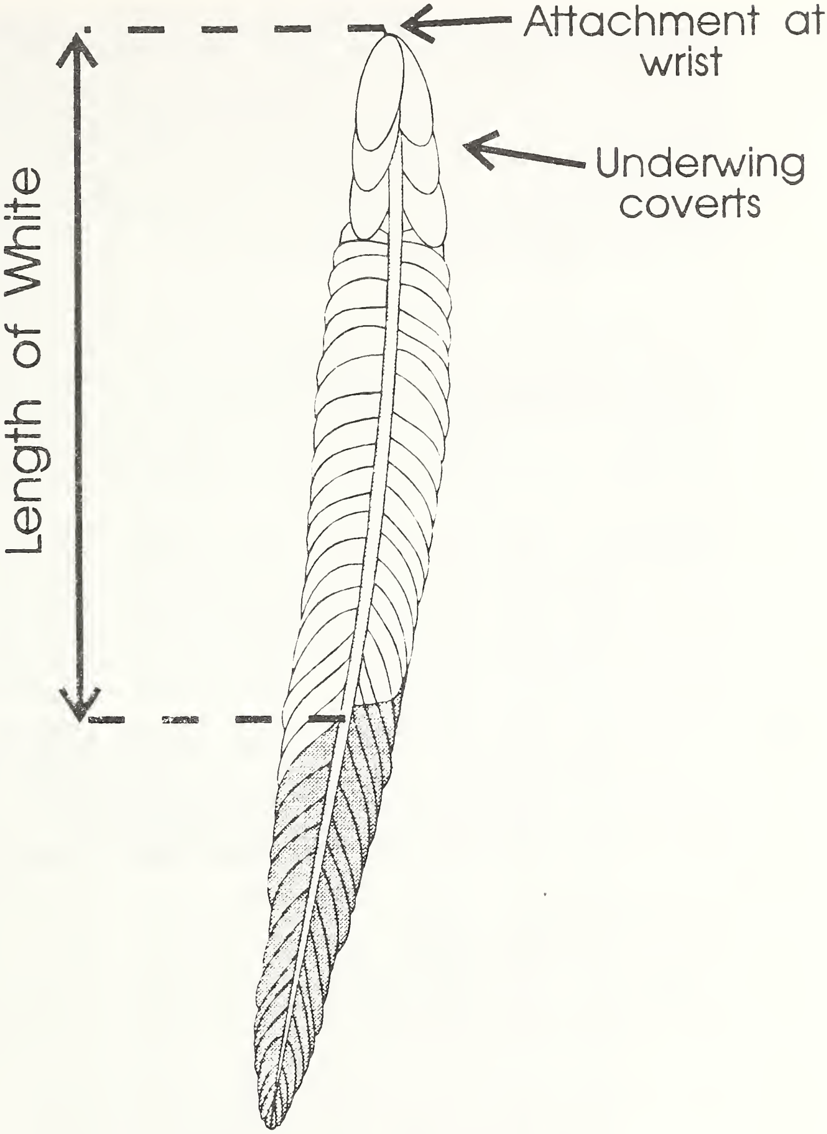
Attachment at wrist
Underwing coverts
Length of White

Fig. 2. A typical mockingbird primary, with the measure of the amount of white indicated at left.

were considerably more variable than the others (pairwise F tests, all *P* values < 0.001). Within females, only primaries 1, 2, and 3 were more variable than primaries 5 - 10. When the wing is extended, the variability in the white on these first few primaries would largely affect how long the wing patch appears as it extends from the 10th primary toward the secondaries (Fig. 1). Variability in the other primaries, which was considerably lower, would largely affect how wide the wing patch looks from the proximal edge of the white coverts to the distal edge of the wing patch on the primaries.

Table 1

Descriptive Statistics on the Amount of White on Each of the Ten Primary Flight Feathers. P# = Primary Number. CV = Coefficient of Variation. ♂ - ♀ = Difference in Means, Males Minus Females.

P#	Sex	*n*	Min	Max	Mean	SE	Med	CV	♂ - ♀
10	♂	34	30.6	39.5	35.11	0.35	35.2	0.058	2.58
	♀	29	30.4	38.0	32.53	0.31	32.3	0.052	
9	♂	34	43.5	55.2	47.88	0.40	47.7	0.049	3.73
	♀	30	39.4	49.4	44.15	0.41	44.1	0.051	
8	♂	34	46.6	53.2	49.55	0.27	49.6	0.032	3.27
	♀	30	42.7	51.4	46.28	0.36	46.0	0.042	
7	♂	34	47.3	56.6	51.49	0.41	50.9	0.046	3.64
	♀	30	42.8	52.8	47.85	0.41	48.1	0.047	
6	♂	34	41.5	57.9	52.85	0.52	53.2	0.057	3.69
	♀	30	44.3	55.3	49.16	0.44	48.8	0.049	
5	♂	34	49.3	59.0	52.24	0.43	51.5	0.048	4.30
	♀	30	42.0	53.5	47.94	0.48	48.1	0.055	
4	♂	34	46.4	65.0	53.63	0.78	52.7	0.085	7.43
	♀	30	38.8	50.7	46.20	0.48	46.8	0.057	
3	♂	34	47.9	78.0	65.37	1.15	64.4	0.102	12.89
	♀	30	42.5	72.6	52.48	1.27	51.3	0.133	
2	♂	34	55.5	78.2	69.53	0.87	70.2	0.073	10.02
	♀	30	47.6	72.9	59.51	0.95	59.1	0.088	
1	♂	34	58.1	77.7	69.02	0.78	68.9	0.066	8.94
	♀	30	47.6	69.9	60.08	0.87	59.6	0.079	

As in other populations (Derrickson and Breitwisch 1992 and citations within), tarsometatarsal length and wing length were both longer in males on average, with considerable overlap across the sexes. Mean ± SE tarsometatarsal length for males was 33.6 ± 0.22 (N = 26; range: 31.2 - 35.5) and for females was 32.3 ± 0.22 (N = 24; range: 30.1 - 34.7). The two sexes differed significantly ($t = 4.069$, df = 48, $P < 0.001$; $r^2 = 0.256$). Mean ± SE wing length for males was 111.8 ± 0.65 (N = 36; range: 103.3 - 119.7) and for females was 104.8 ± 0.66 (N = 33; range: 97.7 - 110.9). Again, the two sexes differed significantly ($t = 7.563$, df = 67, $P < 0.001$; $r^2 = 0.461$).

Wing patch size was correlated with wing length in males ($r = 0.576$, N = 34, $P < 0.001$) and in females ($r = 0.585$, N = 29, $P < 0.001$). However, there was no correlation between wing patch size and tarsometatarsal length in males ($r = 0.072$, N = 26, $P = 0.727$) or in females ($r = 0.233$, N = 22, $P = 0.296$).

The positive relationship between wing patch size and wing length raises the possibility that females are choosing males by body size alone, and the larger wing patch size in males may be due simply to the allometric relationship between wing patch size and body size. Thus, wing patch size divided by total wing length (multiplied by 100 for simplicity) was also compared between males and females. Mean ± SE of (wing patch size/total wing length) x 100 for males was 54.54 ± 0.4 (N = 29; range: 48.60 - 57.98) and for females was 51.61 ± 0.5 (N = 21; range: 47.93 - 57.00). Kolmogorov-Smirnoff one-sample tests for normality indicated that this variable was normally distributed for both males (N = 29, $P = 0.986$) and females (N = 21, $P = 0.671$). The variance in wing patch size was the same for both sexes ($F_{20,28} = 1.34$, $P > 0.10$). Even when corrected for total wing length, males still had significantly larger wing patch sizes than females ($t = 4.76$, df = 48, $P < 0.001$; $r^2 = 0.321$).

Sexing Birds in the Hand. Attempts to use any combination of the measures of the amount of white on individual primaries produced multicollinearity problems, as did combinations of body size measures. Therefore, only wing length and wing patch size were used in the analyses.

Minitab produced the following linear discriminant functions:

Males: - 475.42 + (7.95)Wing length + (0.12)Wing Patch Size
Females: - 419.88 + (7.74)Wing length + (0.05)Wing Patch Size

Data collected from the bird in the hand should be entered into both of these functions; the bird should be placed in the category in which it scores highest. The linear regression function produced was

$$\text{Sex} = 7.5499-(0.0220*\text{Wing Length})-(0.00712*\text{Wing Patch Size})$$

with sex scored as male = 1 and female = 2. Birds scoring below 1.5 are classified as males; females score above 1.5. The standard error of the wing length coefficient was 0.01; that of the wing patch size coefficient was 0.00168. The ANOVA table for this analysis is depicted in Table 2.

Table 2
Anova Table for Regression of Wing Length and Wing Patch Size on Sex

Source	SS	df	MS	F	p
Regression	8.99	2	4.49	40.40	<< 0.0001
Residual	6.66	60	0.11		

Using either of these functions on the complete original data set, 31 out of 34 males (91.2%) and 25 out of 29 females (86.2%) were correctly classified (overall 88.9%). Thus, there is a slight tendency for these functions to misclassify females as males, although the overall proportion of correctly classified individuals is rather high. Rerunning the discriminant analysis with males assigned a prior probability of 0.52 (based on the male-biased sex ratio of approximately 1.1:1) did not improve the proportion of correct classifications. A jack-knifed cross validation on the discriminant analysis produced the same proportions of correct classifications as the validation using the entire original data set.

IV. Discussion

As stated earlier, a wing patch size dimorphism raised the possibilities that wing patch size may be involved in sex recognition, quality advertisement, and/or predator deterrence. The data presented here can certainly address the first two possibilities.

Sex Recognition. The present data suggest sex recognition is an unlikely function. Considering that there is a male-biased sex ratio and females defend the territory against other females (Derrickson and Breitwisch 1992), males with patches in the females' size range could be mistaken for females and if so would be at a considerable reproductive disadvantage, especially if they elicit territorial aggression from females. If wing patch size is a signal for sex recognition, then one would expect that most males would have wing patches considerably larger that most females' wing patches, with very little overlap in size. Instead, only 55.7% of the variation in wing patch size was explained by sex, and there was considerable overlap between the sexes. In fact, 73.2% of males are in the females' size range (the largest female wing patch was 0.62 standard deviation above the males' mean). This casts doubt on the possibility that wing patch size is primarily used in sex recognition, although it may serve to supplement other signals of sex.

Quality Advertisement. If wing patch size is an intersexual signal of male quality, then one would expect it to be 1) sexually dimorphic, as a result of long-term female choice for the largest wing patches, 2) variable among males, because it is a signal which reflects the variability in male quality, 3) related to some aspect of male quality, 4) displayed to potential mates, and 5) generally larger in mated males. Mockingbirds' wing patch size is dimorphic and variable among males. Within males, wing patch size correlated with at least one measure of body size (wing length); body size is related to success in agonistic encounters in many species (Archer 1988) and thus might be considered an aspect of male quality. Further, the flight displays are performed during song, which is used primarily for mate attraction (Derrickson and Breitwisch 1992 and citations within), and are performed much more often by unmated males compared to mated males (Breitwisch and Whitesides 1987). Thus, while song likely attracts potential mates, the accompanying flight displays may function to display the wing patches to these females. Mated males had significantly larger wing patches than unmated males, suggesting a female preference for larger patches. Taken together, these data support the hypothesis that wing patch size may be a signal of male quality to female mockingbirds.

The study of mockingbirds, and particularly of sexual selection in mockingbirds, has been dominated by an interest in their acoustical communication because of their complex song. The present research indicates that mockingbirds may have a well-developed system of intersexual visual signals as well, which should be considered in future studies of their life history and habits. Clearly, such studies would be facilitated by being able to sex mockingbirds at the time of banding. Both the discriminant analysis and the regression analysis had rather high rates of correct classification. The regression function, however, would be easier to compute in the field or to graph for use in the field. Unfortunately, neither these functions nor the sexual dimorphism in the "length" of the wing patch can be considered as definitive tools for sexing mockingbirds in the hand because of the large amounts of overlap in wing patch size and the reasonable possibility of a misclassification of a female of above-average size. However, the discriminant and regression functions are likely to provide better resolution than univariate comparisons because of the large amounts of male-female overlap observed in all mockingbird morphometry to date.

Acknowledgments

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1997 SPRING BIRD COUNT

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Summary

Fifteen areas were covered in this year's count, one fewer than last year. New River, NC, joined this year, and Chapel Hill, NC, reactivated its count, but Charleston, SC, Charlotte, NC, and Gastonia, NC, did not report.

The drop in participation shows up in a number of significant ways. Total effort expended, as measured in party hours is down this year by 91 hours (864.85 this year compared with 955.35 last year). This year's Spring Count logged in 19.45 hours owling compared with last year's 24.25 hours. Two hundred ten species were reported seen this year, nineteen fewer species than last year. Most of this difference is in coastal species that have usually been reported from Charleston. The ten percent decline in effort also resulted in a decline of about 10, 000 individual birds counted (62,142 this year compared to 72,371 birds last year). For effort expended, the observers manage to see about the same number of birds each year (75.75 birds per party hour in 1996, and 71.85 birds per party hour in 1997).

Most species were seen in numbers that are not significantly different from those seen in previous spring counts. Some species that violated this generalization by appearing in larger numbers than usual are Double-crested Cormorants, whose numbers increased by almost three hundred (and that was without the contribution of coastal Charleston); Blue-winged Teal (showing the greatest numbers in six years); and Wild Turkeys. Some of the winter birds that usually depart for their breeding grounds before the Spring Counts seemed to have hung around later than usual and thus inflated their numbers. Examples included Pied-billed Grebe and American Coot. Conversely, the numbers of Blackpoll Warblers increased enormously over what has been reported in recent years, suggesting that this species, which is normally one of the last warblers to migrate through our region, may be migrating a bit earlier than it has been. Numbers of Dark-eyed Junco appear to be up, but this is almost certainly a function of more effort being focused on the mountainous regions in New River and Avery County.

Other species appear to be declining. The most obvious examples include Northern Bobwhite, Mourning Dove, Yellow-billed Cuckoo, Red-headed Woodpecker, Eastern Wood-Pewee, Carolina Wren (that's a surprise), Eastern Bluebird, Northern Mockingbird, Cape May Warbler, Ovenbird, Yellow-breasted Chat, Summer Tanager, Eastern Towhee, and Eastern Meadowlark.

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The declines of some of these species (bobwhite, mockingbird, towhee and meadowlark) have already been documented as declining on the basis of Christmas Count samples, and many of the neotropical migrants (cuckoo, Eastern Wood-Pewee, Ovenbird, Yellow-breasted Chat, Summer Tanager) have been suspected as having declined on the basis of observations made on Breeding Bird Surveys. Mourning Dove numbers have always been volatile, so it is difficult to determine what the apparent decline in numbers actually means.

Compilers' Comments

AVNC - Avery County, NC. Grandfather Mountain Toll Road May 10, 0630-1515h. Temp. 33°-54°F. Precipitation 0, wind, gusts to 90 mph, diminishing during the day to 19-24 mph at finish. Sky condition, overcast.

Participants: Compiler Margery R. Plymire, Box 843, Linville , NC, 28646; Willa Glines, Rad Mayfield, Stewart Skeate.

Compiler's comments: Birds were not conspicuous with high winds, and hearing was difficult.

CPNC - Chapel Hill, NC. Center at intersection Franklin and Columbia Streets, Chapel Hill. May 4 Temp. 50°-70°F. Precipitation none, wind NW, 5-15. Mostly clear with scattered showers.

Participants: Compiler Will Cook, 418 Sharon Rd., Chapel Hill, NC 27514; Audrey Booth, Nancy Buehler, Peter Burke, Bob Chase, Jacqueline Dale, Marsha Dohrmann, Tom and Barbara Driscoll, Kent Fiala, Edward Fiess, Trish Gardner, Maury Graves, Steve Graves, Bob Hale, Carol Hamilton, Lois Harris, Lee Hart, Walton Haywood, Pat and Pete Hobson, Sue Homewood, Fran Hommersand, Margie Huggins, Steve Kahler, Ken Knapp, Roger Kohn, Tom LeDuc, Roy Lindholm, David Lindquist, Ken Lundstrom, Monica Nees, Oliver Orr, Cathy Packer, Franchesca Perez, Joanna Perkinson, Matt Perry, Kevin Powell, Terry Roberts, Barbara Roth, Jim Samet, Harriet Sato, Mike Schultz, Lois Schultz, Doug Shadwick, Les Todd, Ginger Travis, Anita Tyndall.

Compiler's comments: The Chapel Hill count was a little below average both in species (122 vs. 10 year average 127) and individuals (8594 vs. average 8912). We had 48 counters in 22 groups, 147 party hours and 380 party miles. Despite the low overall totals, it was an outstanding count for most neotropical migrants, with the highest number of migrant warblers since 1983 (104) and the highest percentage of warblers (1.2%) and all neotropical migrants (30.5%) since 1979. We also had the lowest percentage of introduced birds since 1984 (6.6%).

The best birds of the count were the 2 Blue-winged Teal (the first since 1984), Wild Turkey (also the first since 1984), 2 Bonaparte's Gulls, 2 Yellow-bellied Sapsuckers, Gray-cheeked Thrush (first since 1980), 6 Black-throated Green Warblers, Blackburnian Warbler, 3 Bay-breasted Warbler, and Rusty Blackbird.

Good count-week birds were Yellow-crowned Night Heron, Semipalmated Plover, Lesser Yellowlegs, Least Sandpiper, Cape May Warbler, and Lincoln's Sparrow. This is the first record of Lincoln's Sparrow for the count period. The shorebirds could easily have been seen on count day if somebody had covered the sewage plant on Farrington Road.

Despite the low overall count, we set record highs for a number of species: 28 Red-shouldered Hawks (average 14), 44 Red-tailed Hawks (average 23), 113 Rough-winged Swallows (average 35), 341 Tufted Titmice (average 221), 296 Blue-gray Gnatcatchers (average 186), 8 Chestnut-sided Warblers (average 1), 6 Black-throated Green Warblers (average 0.5), and 17 Baltimore Orioles (average 3).

Other species in near record numbers were 276 Chimney Swifts (average 206), 70 Tree Swallows (average 5), 13 Yellow Warblers (average 6), 63 Black-throated Blue Warblers (average 21), 62 Prairie Warblers (36), 6 Blackpoll Warblers (average 1), and 92 Scarlet Tanagers (average 42).

We missed Northern Bobwhite for the first time ever (average 25), continuing the long decline in the count circle that started in the mid-1980's. There is a flock of 20 or so that usually resides at the end of Old Hope Valley Road, but they were missed on count day.

We also had a record low count of 15 Eastern Meadowlarks (average 61), continuing the long decline that started in the late 1980's.

Other exceptionally low totals were 207 Mourning Doves (average 319), 22 Eastern Kingbirds (average 54), 91 Red-winged Blackbirds (average 156), and 326 Common Grackles (average 455). All these except grackles are continuing on declining trends.

Overall it was a good count: It's a rare treat to see good numbers of neotropical migrants in the North Carolina Piedmont!

DUNC - Durham, NC. Center one mile east and one mile north, jct. Eno River and US 501. April 27, 0530–1530h. Temperature 55–59°F with drizzle in the morning and rain in the afternoon. No wind and overcast.

Participants: Compiler Michael Schultz, 5504 Woodberry Rd., Durham, NC, 27707; Norm Budnitz, Mark Chandler, Will Cook, Tom Driscoll, John Frederick, Dan Kaplan, Ken Knapp, Lori Marlow, Todd Pummer, Lois Schultz, Doug Shadwick, Gwen Shillinglaw, Kirk Shillinglaw, Ben Steere, Jonathan Steere, Edith Tatum, Anita Tyndall.

GRNC - Greensboro, NC. Center at intersection of Pisgah Church Road and Highway 220. May 3, 0630–1830h, Temperature 61°- 66°F with 0.39 inches of precipitation. Wind 10 mph SW in the morning and 13 mph SW in the afternoon. Sky was cloudy.

Participants: Compiler Donald Allen, 2611 David Caldwell Dr., Greensboro, NC; Carolyn Allen, Dennis Burnette, Lynn Burnette, Chris Carter, Sue Cole, Phil Crisp, Scott Depue, Larry Gasper, Stan Gilliam, Nancy Hannah, Herbert Hendrickson, Nancy Hunt, Elizabeth Link, Henry Link, Suzanne Lund, Jim Mattocks, Jean McCoy, Lynn McMillan, J. Moores, Lynn Moseley, Jean Murdick, Lane Oldham, Elizabeth Ogburn, Chip Prairie, Nancy Prairie, Dan Royster, Jim Schletzer, Wally Sills, Barbara Smith, Laurie Sorrell, Jann Steighner, Henry Strickland, Lucille Swarts, Emily Talbert, Emily Tyler, Debbie Zombeck.

Compiler's comments: Count day was wet and somewhat cool. It was not a heavy rain, but was continuous from the time parties went into the field until early afternoon. The combination of rainfall and modest temperatures (60's) kept the birds quiet and less active. Areas that have in the past provided ample bird song and calls for identification were all but silent this year. The birds also tended to stay under cover where they were difficult to see. The combined consequence was reduced count totals this year.

While the weather had its effects, it is there in some form every year. Changes in the count territory produce their influences, but these seem to have a course or direction different from the fluctuations of weather. Land use changes. What was pasture or forest last year is an apartment complex, industrial plant, or parking lot now. Quiet "country roads" become high-use connectors. The noise of traffic grows to a level which makes it impossible to even hear bird songs. These modifications probably do not have equal effects on different species. However, it does appear that the number and species of birds in the territory is changing. These changes are often less obvious than the rising or falling totals of species or individuals we witness with each year's reports. The analysis of count results might allow the documentation and identification of these changes as they occur.

GVNC - Greenville, NC. Center at 35°35' N 77°114' W, jct. CR 1762 and SR 33. May 4, 0530–2000h. Temperature 55°-65°F, with no precipitation. Windy with the sky sunny.

Participants: Compiler John Wright, 1953-A Quail Ridge Rd., Greenville, NC, 27858; Co-compiler Dr. Veronica S. Pantelidis, 106 Lakeview Dr., Greenville, NC, 27858; Brad Carlson, Ken Harrell, David Kaminski, Jill Kaminski, Debbie Meade, Chris Ohl, Triston Ohl, Paula Wright.

ICNC - Iredell County, NC. May 4, 0630–1600h. Temperature 58°-71°F, with no precipitation. Wind 10-20 mph, with gusts to 25, with clear skies.

Participants: Compiler Sam Cathey, 130 Park Street, Statesville, NC, 28677; Penny Benbow, Debbie Birnley, Bill English, Lois Goforth, Madeline Hill, Larry Marlin, Joel McConnell, Sue McConnell, Nancy MIller, Dick Mize, Janice Powell, Elaine Rines, John Robertson, Allen Stanley, Garnet Underwood, Ron Underwood.

Compiler's comments: A cool, windy, spring day compounded the diminishing warbler count problem. While Great Egrets have appeared in the count area for the last three summers, these were the first ever reported on the spring count. Also, this was our best shorebird count.

JLNC - Jordan Lake, NC. Center former crossing of New Hope River and Pea Ridge Rd. (now under water). May 10, 0500–2000h. Temperature 42°-62°F, with no precipitation. Windy with gusts to 30 mph after 8 am. Skies clear in am but 25% cloud cover in pm.

Participants: Compiler Barbara Roth, 347 Carolina Meadows Villa, Chapel Hill, NC, 27514-7519; Co-compiler Will Cook, 418 Sharon Rd., Chapel Hill, NC, 27514; Barbara Beaman, Yvonne Becker, Nancy Buehler, Peter Burke, Charles W. Byrd, Jr., Barbara Coffman, Patrick Coin, Jefferson Dalby, Claudia Egelhoff, Maurice Graves, Perry Haaland, Bob Hale, Steve Hall, Willard Hartman, Walton Haywood, Chuck Helmick, Russell Herman, Loren Hintz, Fran Hommersand, Steve Kahler, John Kent, Roger Kohn, Kathy Kuyper, Barbara Logue, Terry Logue, Phil Manning, Melinda Meade, Lynn Milich, Judy Murry, Cathy Parker, Rick Payne, Francesca Perez, Joanna Perkinson, Kevin Powell, James Samet, Douglas Shadwick, Julia Shields, Jennifer Shoemaker, Ginger Travis, Anita Tyndall, Marta Wayne.

Compiler's comments: This was a very disappointing bird count in that we had the lowest species total since the first year of this count (1977), and the lowest total of individual birds since 1987. A jinx on the "7" years?

Several known factors are responsible for at least part of the low count. Weather was one of these factors: very high winds, with gusts to 30 miles per hour after 8 am, coupled with the unusually cold weather, about 42-62°F range for the day. The early morning was raw, conducive to keeping birds under cover.

A second very important factor was that several of our best birders were not available for this count because they were involved with the new National Migration Day.

We had record low counts of bobwhites, owls, and Whip-poor-wills and had no Chuck-will's-widow. Hummingbirds, catbirds, White-eyed Vireos, Prothonotary Warblers, Prairie Warblers, chats, and meadowlarks were also down. We also had low counts of Yellow-billed Cuckoos, Wood Thrushes, Chipping Sparrows, Red-winged Blackbirds, grackles and House Finches. Orchard Orioles, thrashers, robins, several woodpeckers, and cowbirds were also rather low. There were no Pied-billed Grebes or White-throated Sparrows. The grebes here have been steadily declining. Were the sparrows all gone? The only species on which we had high numbers were Canada Geese, American Crows and Blackpoll Warblers. The latter tied the high on May 8, 1983.

To clarify prior remarks, we did count our regular 15-mile diameter circle as usual, which is mainly in Chatham County, but also includes a bit of Wake, as well as Lee. The fact that our count was on the Migration Day was simply fortuitous, according to our prior agreement. Will Cooke sent our data to the Migration Day compiler, I believe, as a courtesy.

Our last count conducted on May 10 was in 1992. On that date we found 146 species— a high for this count circle, and 8,716 individuals birds, which also represents a high. We had 44 observers that year. That morning was misty, with 50-75° weather for the day. I do not believe our habitats have changed that much in the past 5 years, although the developments are starting to move in, and farming grows less. So I blame windy weather and a paucity of knowledgeable birders as major factors, which may be coupled with an actual decrease in many bird populations.

Our one unusual bird for the day was the Mississippi Kite, never before seen on a Jordan Lake Count, but well observed and described by Rick Payne with Phil Manning. This, and other less common species, have been separately documented.

NRNC - New River, Alleghany County, NC. Center at 36°31' N and 81°12' W. May 10, 0530–2100h. Temperature 29°-42°F with light snow early and drizzle later. Wind 20 mph NW with gusts to 40 mph. Sky heavily overcast early, partly cloudy later.

Participants: Compiler James Coman, 9124 NC Hwy 93, Piney Creek, NC 28663; Harold Blevins, Velma Blevins, J.H. Coman, Jr., Jim Keighton, Alice Keighton.

Compiler's comments: The weather this spring has continued to be extremely cold and windy in this area, with repeated passage of frontal systems that bring little if any rain, but one to three days of drizzle and snow flurries, accompanied by high winds and cold temperatures.

This weather pattern, combined with repeated frosts and freezes up until today, has certainly retarded the growth of all plants in the area this spring. I am unsure as to the effect of this weather upon migrant bird populations in the northwestern mountains this spring, but it certainly made birding during the migration difficult. Our Spring Count was held on May 10, with a low temperature of 29°F and high of 42°F. The sky was heavily overcast with brief snow flurries in the morning changing to partly cloudy in the afternoon. Winds of 20+ mph came from the NW, with gusts to 40 mph. I must note that on the morning of May 10, I was thus able to observe Scarlet Tanagers and American Redstarts in a snowstorm, which I heretofore considered impossible. I must further note that the last New River CBC, on 28 Dec 1996, was held on a clear, calm, balmy day, with a low of about 42°F and a high of 63°F.

We have changed our spring count from the Migration Day Count to the Carolina Bird Club Spring Count format, on the New River Count Circle, held on May 10 this year. Though the weather suppressed birding activities on May 10, we did have a successful count and the following observations seem significant:

Olive-sided Flycatcher: One in Piney Creek 10 May. This bird was far more robust than the similar phoebes and *Empidonax* flycatchers, showing the "unbuttoned vest" chest and belly pattern, observed at 100' range under good lighting in the late afternoon.

Black-billed Cuckoo: I have observed individual birds on May 5, 7, 10, 16, and 23 and two birds on May 8, all on my farm in Piney Creek. I am unsure as to the exact number of individuals represented here, but at least two are present. This number of sightings is unprecedented in my experience. Although there are some tent caterpillar nests present, and on three occasions birds were observed feeding on the caterpillars, there does not seem to be a major infestation of these caterpillars to draw cuckoos.

Winter Wren: One reported by the Keightons is late.

Yellow-rumped Warbler: I have a count of 159 on my farm. They were literally everywhere, accounting for 80% of the warblers that I counted on 10 May.

Warbling Vireo: Two reports, one at my farm and one along the New River by Harold Blevins, both May 10.

Ovenbird: Low numbers, only 9 reported by three parties, possibly due to the wind masking calls.

Osprey: Not uncommon during the migration along the New River, we did have one fly over during the 10 May count at Piney Creek. However, an Osprey perched in a small silver maple beside my home, holding a live and wiggling bluegill, at noon on 13 May was completely unexpected.

The Barn Owl family is still in residence, still using my back porch as a nighttime hunting perch.

The count week Peregrine was reported to me by the Keightons.

The Least Flycatchers were identified by Harold Blevins when singing the "che-bek" call. The three unidentified *Empidonax* flycatchers were on my farm, giving no calls.

The count week bobwhite is one bird heard calling on my farm on May 12. This species continues its rapid decline in Alleghany County.

I consider the number of Green Herons and Great Blue Herons to be lower than expected.

Purple Martins are present in this area, but none of us live near an active colony, so this species was missed on the count.

RANC - Raleigh, NC. Center southern Wake County, Lake Wheeler Rd. May 10, 0530–2100h. Temperature 50°-63°F, with no precipitation. Wind 5-15 mph. Sky was partly cloudy.

Participants: Compiler John L. Conners, 1227 Mordecai Dr., Raleigh, NC, 27604; B. Alderink, Tom Augspurger, L. Barber, M.A. Brittain, H. Carmichael, Susan Campbell, Hal Carmichael, T. Creamer, J. Finnegan, B. Fisher, M. Fisher, P. Fretel, S. Gilbert, G. Gordan, Bob Hader, Diane Hardy, J. Harris, Ann Hicks, S. Horton, V. Janke, Ken Knapp, D. Kucken, L. Lafitte, R. Lindholm, M. Mitchell, J. Musser, Monica Nees, B. O'Brien, Tom Quay, Will Rowland, Karen Russell, J. Saracco, L. Smiley, C. Smith, J.A. Stewart, E. Thomas, Bob Wells, B. Young, J. Zerrer .

Compiler's comments: There was a strong warbler/neotropical migration through this area this week. Lake Raleigh and Yakes Pond were destroyed by Hurricane Fran last September and had little water but some mudflats. There are still many, many downed trees throughout the area from that storm—a very different landscape.

RVNC - Raven Rock State Park, NC. Center at intersection of NC 210 and SR 1434; 2.75 miles north of Lillington. May 3, 0530–1730. Temperature 50°-74°F with 0.42 inches precipitation. Wind 2-15 mph SW. Skies were cloudy with a morning thunderstorm.

Participants: Compiler Paul C. Hart, Raven Rock State Park, Rt. 3, Box 1005 Lillington, NC 27545; Jim Bateson, David Brown, David Hannah, Scott Hartley, Tom Howard, Bobby Lutfy, Mitch Reese, Larry Rose, Mary Stevens, Sarah Stevens.

Compiler's comments: The species total of 117 is the second highest for the Raven Rock count. 122 species were recorded in 1989. The wind and the rain on the count day seemed to help produce a higher total. Eight species of shorebirds (and upland kin) were observed. All eastern swallow species were observed. Twenty-one species of warblers were seen.

Good finds included:

Common Loon: Paul Hart and Sarah Stevens found an individual still mainly in winter plumage at the Old Becker Sand and Gravel ponds (now Coble Ski School) on Ross Road. This species has been recorded on only two previous counts.

Snowy Egret: A new species for the count, Larry Rose, Bobby Lutfy and Jim Bateson found this bird beside a farm pond north of Lillington.

Semipalmated Plover: Also new to the count were three of these birds, seen and heard at the Lillington Wastewater Treatment Plant. They were seen with Least Sandpipers and Killdeers. Paul Hart and Sarah Stevens were the observers.

Eastern Kingbird: An amazing 105 were observed by Scott Hartley in a single field!

Cliff Swallow: Sarah Stevens and Paul Hart observed two at the US 401 bridge over the Cape Fear River. I returned to the site later in May and found them nesting. This was another new species for the count.

Sedge Wren: Sarah Stevens and Paul Hart saw this furtive species in a wet ditch at the Carolina Aggregates sand and gravel plant on Ross Road. This was another new species for the count.

Blackpoll Warbler: We normally don't get them on our count, as they are a fairly late migrant. Having been recorded only once on the count, this find by Mary Stevens is noteworthy.

Bay-breasted Warbler: I formerly saw one or two of these birds each spring at Crowders Mountain State Park in Gaston County. But in ten springs at Raven Rock, I have yet to see one. Having been recorded only once previously since the count began in 1982, this singing male was certainly a good find by Mitch Reese.

There were some "misses" this year: Great Horned Owl, House Wren and Ruby-crowned Kinglet. Only one Whip-poor-will was reported.

SHNC - Shelby, Cleveland County, NC. Center at jct. US 74 & NC 226. May 4, 0700–1500h. Temperature 50°-70°F with no precipitation. Wind 0-10 mph with skies partly cloudy.

Participants: Compiler Patricia Wilkinson, 213 Windsor Dr., Shelby NC 28150; Dorothy McMurry, JoAnn Martin.

Compiler's comments: This was a good count for us. We have never had over 80 species.

SPNC - Southern Pines, NC. Center 35°113'N 79°119' W, 1 mile NE of Skyline. May 4, 0400–1945h. Temperature 48°-72°F, with no precipitation. Wind 2-8 W with skies partly cloudy to fair.

Participants: Compiler Elizabeth Watson and Dr. J.H. Carter III, P.O. Box 891, Southern Pines, NC 28388; Earle Anderson*, Eleanor Anderson*, Jackie Britcher, Dick Burk, Marion Burke, Bob Coby*, Dick Dole, Lois Dole, Beth Evans, Bryce Fleming, Dan Frisk, Charoltte Gatz, Scott Hartley, Pat Hoffman*, Dean Holzgraf, Tom Howard, Fran Irvin, Wayne Irvin*, Sally Logan, Al McDonald, Trevor McDonald, Barbara Simpson, Bruce Sorrie, Marty Stephenson, Carol Tingley, Susan Tingley, Vard Travis, Alice Wood, Don Wood. **Feeders only.*

WSNC - Winston-Salem, NC. Center at intersection of Business I-40 and Silas Creek Parkway. May 3, 0600–1800h. Temperature 61°-75°F. Wind extremely variable, 0-20 mph gusts, cloudy and rainy.

Participants: Compiler David Disher, 4145 Chatham Hill Dr., Winston-Salem, NC, 27104; Caroline Allen, Kay Bergey, Regina Burt, Zac Bynum, Peg Cochrane, Linda Davis, Gardner Gidley, Margaret Gidley, Bert Hollifield, Royce Hough, Lois Jones, Barbara and Leon Kendrick, Peggy Kinlaw, Jim Martin, Jim May, Sue Moore, Joyce Neece, Ann Pollard, Paul Powers, Helen Ruble, Marilyn Shuping, Joy Skafidas, Ramona Snavely, Paul Spain, Jim Spencer, Bill Sugg, Gray Tuttle, Jay Wilhelmi, Bob Witherington.

Compiler's comments: May 3 was generally a poor day for the Bird Count. It rained on and off during the day. The best flight of migrants appeared the following week. The most unusual species reported were a White-rumped Sandpiper and a Black-billed Cuckoo. It has been a much cooler than normal spring, and our area continues to suffer from construction blight.

CGSC - Congaree Swamp, SC. Center at Congaree River, 400 meters NW of confluence of Bates Mill Creek. May 3 0700–2100h. Temperature 70°-85° F with 1.5 inches of rain. Wind 0-15 mph, with cloudy skies.

Participants: Compiler Robin Carter, 4165 East Buchanan, Columbia. SC 29206; Steve Dennis, Caroline Eastman, Glenn Englehardt, Dennis Forsythe, Donna Forsythe, Henry Fuseler, Jerry Griggs, Gene Hall, Joyce Hall. Catherine Leblond.

Compiler's comments: We had a typical count. The only species that was a bit unusual was the Dickcissel, which was singing in the same fallow field where we found several Dickcissel in May 1996. We (Robin Carter, Carolina Eastman, Jerry Griggs) never could locate it to see it, but we heard the "dick-dick-siss-siss-siss" call for about five minutes.

SPSC - Spartanburg, SC. Center just south of Spartanburg Airport. May 10, times not noted. Temperature 46°-73°F, with no precipitation. Wind 5-8 knots N in am, 10-12 knots N, higher in gusts. Sky clear.

Participants: Compiler Lyle Campbell, 126 Greengate Lane, Spartanburg, SC; Robbie Allen, Tom Allen, Steve Barr, David Barry, John Barry, Susan Barry, Tim Brown, David Campbell, Matthew Campbell, Matthew Coleman, John Derrick, Julia Derrick, Judy Edmonds, Pat Fowler, Roy Fowler, Bill Glenn, Teresa Glenn, Becky Gray, Stephen Harris, J.B. Hines, Myra Hines, Jack Jennings, Flip Jones, Lisa Lever, John Lever, Micky Marotte, Gail Medlain, Mary Ann Meyers, Bill Moody, Gill Newberry, Gibbs Patton, Ken Pearson, Lisa Pearson, Bob Powell, Doug Rayner, Mac Shealy, Gerald Thurmond.

Compiler's comments: The 1997 Spartanburg Count was exceptionally diverse with good numbers of sparrows, shorebirds, and warblers. The best bird was a Lawrence's Warbler, first spotted May 9 by Stephen Harris. Other new additions to the county list include Baird's, Western, and Semipalmated Sandpipers and a nesting pair of Bachman's Sparrow. A Philadelphia Vireo and flock of Bobolinks were noteworthy, and we had higher than normal numbers of Brown Thrashers, Scarlet Tanagers and Blue Grosbeaks.

Species	AVNC	CPNC	DUNC	GRNC	GVNC	ICNC	JLNC	NRNC	RANC	RVNC	SHNC	SPNC	WSNC	CGSC	SPSC	TOTAL
Common Loon							1			1						2
Pied-billed Grebe				2	4				1			1	1		*	9
Dbl.-cr. Cormorant		199	789	79	106		275		36	5		5	3	2	1	1500
Anhinga														1		1
American Bittern												1				1
Great Blue Heron		21	43	3	25	5	13	2	10	8	1	9	2	19	10	171
Great Egret					16	3								5		24
Snowy Egret				1						1						2
Little Blue Heron									1					5		6
Cattle Egret				1	13					1				1		16
Green Heron	1	14	8	15	8	2	9	1	7	5		9	3	13	3	98
Black-cr. Nt-Heron			3													3
Yel-cr. Nt-Heron		*		5									2	22		29
Mute Swan												4				4
Canada Goose	6	156	88	383	39	65	69	5	155	71	4	46	252		53	1392
Wood Duck	1	31	33	7	22	14	25	6	20	17		30	19	25	11	261
Gr.-winged Teal												1				1
Am. Black Duck					18		2					2				22
Mallard		63	71	202	16	24	42	4	81	14	3	54	83		52	709
No. Pintail					1											1
Blue-winged Teal		2	20	9	10				3		12		6			62
Gadwall					2											2
Ring-necked Duck				5												5
Lesser Scaup												1				1
Bufflehead													*			0
Hooded Merganser												4	1			5
Com. Merganser							1									1
Red-br. Merganser			2				2					1				5
Ruddy Duck				1								4				5
Black Vulture		21	*	5	4	9	20	9				3			48	119

Species	AVNC	CPNC	DUNC	GRNC	GVNC	ICNC	JLNC	NRNC	RANC	RVNC	SHNC	SPNC	WSNC	CGSC	SPSC	TOTAL
Turkey Vulture	4	91	5	19	148	35	120	45	39	21	5	16	17	4	26	595
Osprey		2	12	4	5		20	2	3	2		3	2	1	2	58
Mississippi Kite							1		1					3		5
Bald Eagle		6	1	2	2		5					1				17
Sharp-shin. Hawk		1	2	*		3	5	1					*		*	12
Cooper's Hawk		1		2	1	1	6		1	1			5		2	20
Accipiter sp.			1	1						1						3
Red-shoulder Hawk		28	10	6	5	5	10		10	1	1	14	3	5	6	104
Brd.-winged Hawk	1	2				4	6	2		2		3	1	1		22
Red-tailed Hawk	1	44	6	12	18	8	17	5	21	11	4	23	10	6	7	193
Amerian Kestral		1	1	2				2	1			6	2		5	20
Merlin			1													1
Peregrine Falcon								*								
Ruffed Grouse								1								1
Wild Turkey		1	6			22		20		2					*	51
Northern Bobwhite			7	14	13	6	5	*	4	24	3	21	1	4	8	110
American Coot			1	7		1						34			*	43
Semipalm. Plover		*			2				2	3						7
Killdeer		25	11	18	35	13	39	7	22	53	5	7	26	6	24	291
Greater Yellowlegs					10				3				10		11	34
Lesser Yellowlegs		*	2	4	106	8			2	1			*		10	133
Solitary Sandpiper	1	10	2	15	14	13	6	2	38	3	8	6	59		9	186
Willet												1				1
Spotted Sandpiper		27	10	49	33	5	25	7	47	13		28	21		6	271
Semip. Sandpiper					2	4			2						1	9
Western Sandpiper															4	4
Least Sandpiper		*		2	37				7	19	5	12	12		*	94
Wh.-rump. Sand.					3				2				*			5
Baird's Sandpiper															1	1
Pectoral Sandpip.					16								1			17

Species	AVNC	CPNC	DUNC	GRNC	GVNC	ICNC	JLNC	NRNC	RANC	RVNC	SHNC	SPNC	WSNC	CGSC	SPSC	TOTAL
Common Snipe				1	1						1	1				4
Am.Woodcock			2							1				1		4
Wilson's Phalarope					1											1
Bonaparte's Gull		2														2
Ring-billed Gull		4	139	63	45		218		37			1		1		508
Caspian Tern			14	4												18
Forster's Tern				4			2									6
Least Tern					11											11
Black Tern				1												1
Rock Dove		65	62	94	34	21	18	5	108	51	17	10	41	35	91	652
Mourning Dove	6	207	144	289	95	150	150	23	166	245	56	164	171	49	148	2063
Blk.-billed Cuckoo								1					1			2
Yel.-billed Cuckoo		5	1	3	2	2	3	1	6	2	2	2	1	11	*	41
Common Barn-Owl								1							*	1
E. Screech Owl					1			1		5		1	*		*	8
Gt. Horned Owl		2	1	2	2	4		1	1			4	1		*	18
Barred Owl		14	7	3	2	4	1		1	5	1	6		5	*	49
Com. Nighthawk				1	2	1			2			4	2		1	13
Chuck-will's-widow					4					4		18	2	1	12	41
Whip-poor-will		8	2		2	1	3		1	1		9	*	5	11	43
Chimney Swift		276	52	210	102	97	126	3	266	156	8	73	137	54	225	1785
Ruby-thr. Hummer	4	39	19	11	17	5	8	30	15	8		18	6	5	5	190
Belted Kingfisher		9	6	11	14	2	4	1	17	5		13	7	1	8	98
Red-head. Woodp.		26	11	4	5	2	6		3	2		20	3	5	2	89
Red-bel. W-pecker		149	56	48	26	34	64	5	70	32	6	47	37	31	26	631
Yel.-bel. Sapsucker		2		1	1								*		2	6
Downy W-pecker	2	49	26	37	10	14	26	10	35	12	5	17	8	9	9	269
Hairy Woodpecker	1	13	4	6	2	4	4	1	7	1	1	3	4		2	53
Red-ckd W-pecker												12				12
Northern Flicker	1	31	17	30	16	9	18	7	15	10	1	26	27	2	11	221

Species	AVNC	CPNC	DUNC	GRNC	GVNC	ICNC	JLNC	NRNC	RANC	RVNC	SHNC	SPNC	WSNC	CGSC	SPSC	TOTAL
Pileated W-pecker	1	9	2	3	12	3	8	12	3	8	1	16	7	13	7	105
Olice-sd Flycatcher								1								1
E. Wood-Pewee		24	1	6	15	1	29	3	13	19	2	21	4	13	4	155
Acadian Flycatcher		26	4		31	1	14	4	37	32		13	1	22	3	188
Willow Flycatcher															1	1
Least Flycatcher								2								2
Empidonax sp.								3								3
Eastern Phoebe	2	27	13	17	3	14	20	8	6	12	2	14	19		20	177
Gt. Cr. Flycatcher		32	8	17	47	3	49	1	38	25	3	55	14	29	4	325
Eastern Kingbird		22	18	25	47	75	66	8	23	152	25	65	19	50	46	641
Horned Lark				3	3	2				6	5			1		20
Purple Martin		21	15	104	17	210	116		12	7	18	85	89	227	50	971
Tree Swallow	2	70	8	7	10	4	31	28	2	7		8	31	1		209
Rough-w. Swallow	8	113	29	84	61	8	42	5	65	33	2	31	39		20	540
Bank Swallow				3	3		2		18	8		9				43
Cliff Swallow			4	1			47		8	2				1		63
Barn Swallow	21	154	98	215	108	177	190	28	298	181	22	131	105	193	121	2042
Blue Jay	13	196	132	165	26	64	94	13	118	82	18	61	101	17	109	1209
American Crow	47	236	158	213	113	140	312	40	181	128	20	165	87	33	240	2113
Fish Crow		16	13	15	17		13		122	13		43		14	*	266
Common Raven	6							1								7
Crow sp.														10		10
Carolina Chickadee	6	260	150	136	60	31	148	16	135	43	8	60	70	21	50	1194
Tufted Titmouse	12	341	157	117	28	42	162	14	138	59	7	81	47	49	39	1293
Red-br. Nuthatch	3															3
White-br. Nuthatch		28	5	16	2	7	8	3	12		1	16	4	6	4	112
Brown-he. Nuthatch		48	32	37	7	3	28		34	8	1	33	2	8	16	257
Brown Creeper						1										1
Carolina Wren		235	84	122	33	37	118	10	132	61	5	65		47	47	996
House Wren	2	23	13	10	2	9	3	3	6		2		7		5	85

Species	AVNC	CPNC	DUNC	GRNC	GVNC	ICNC	JLNC	NRNC	RANC	RVNC	SHNC	SPNC	WSNC	CGSC	SPSC	TOTAL
Winter Wren	2							1								3
Sedge Wren										1						1
Golden-cr. Kinglet	7							1					1			9
Ruby-cr. Kinglet	1	4	13	5	4							1	2			30
B-g. Gnatcatcher		296	258	62	55	29	160	28	145	99	8	68	17	42	22	1289
Eastern Bluebird		141	63	105	56	131	103	31	43	92	16	80	58	20	137	1076
Veery	5	2		8	6	1	1		8	3		1	4	1	3	43
Gray-cheek Thrush		1											*			1
Swainson's Thrush		8	2	18	3	2	7		10			1	5			56
Hermit Thrush			2		2				2				1			7
Wood Thrush	1	75	97	34	42	14	36	6	35	47	1	26	26	19	9	468
American Robin	27	258	331	654	75	186	65	32	190	102	26	129	257	18	147	2497
Gray Catbird	5	81	32	85	18	42	11	7	48	40	3	55	17	18	8	470
N. Mockingbird		147	90	161	41	83	48	9	56	68	35	102	44	45	123	1052
Brown Thrasher		52	39	61	30	24	19	12	19	31	4	39	31	20	58	439
American Pipit											5					5
Cedar Waxwing		44		57	26	62	144		85	20	28	83	61	70	44	724
Loggerhead Shrike					6	3			1	4	3	12		18		47
European Starling	5	275	242	606	262	145	123	49	472	146	45	60	150	25	240	2845
White-eyed Vireo		33	30	1	36	5	24	1	8	19		31	7	35	2	232
Solitary Vireo	15	1	6				3	2				1	1			29
Yellow-thr. Vireo		30	25	5	6		13	8	7	10	1	9	1	2	*	117
Warbling Vireo								2								2
Red-eyed Vireo	4	306	207	80	42	35	223	33	163	97	11	52	32	14	20	1319
Blue-winged Warb.		4	3	1	1		*		5	3			*		*	17
Golden-wi. Warbler															*	
Lawrence's Warb.															1	1
Nashville Warbler									1				*			1
Northern Parula		84	47	14	30	5	53	7	69	46	2	18	15	24	11	425
Yellow Warbler		13	4	8	23	1	5	12	24	8	2	17	5	5	1	128

Species	AVNC	CPNC	DUNC	GRNC	GVNC	ICNC	JLNC	NRNC	RANC	RVNC	SHNC	SPNC	WSNC	CGSC	SPSC	TOTAL
Chest.-sided Warb.	5	8	1	3			2	1	14	3		7	4		1	49
Magnolia Warbler				3			4	2	11			2	3		1	26
Cape May Warbler		*						2			1		9	6		18
B.-thr. Blue Warb.	15	63	3	44	29	7	35	8	55	17		22	13	10	1	322
Y-rumped Warbler		162	606	181	31	77	84	165	129	71	6	16	66	7	16	1617
B-thd Green Warb.	6	6	1	1			*	2	5	1		3	3			28
Blackburnian Warb.		1					1	2			1		1			6
Yellow-thr. Warbler		30	44		6		59		21	25		20	2	7	4	218
Pine Warbler		132	106	27	19	11	146	2	61	29	2	48	4	29	15	631
Prarie Warbler		62	32	5	28	5	39		5	27	1	14	5	11	5	239
Palm Warbler	2		2	4	1		1	4					3			17
Bay-breasted Warb.		3					1		2	1	1		*			8
Blackpoll Warbler		6			23	3	30	1	28	1	1	16	*		3	112
B. -&-white Warb.		45	8	5	17	3	16	3	27	40		51	4	4	2	225
American Redstart		81	13	25	21	2	36	5	72	31	4	43	5	9	6	353
Prothonotary Warb.		20	20		57		7		12	27		8	1	16		168
Worm-eating Warb.		4	1		4		1	1	4				1		*	16
Swainson's Warbler					1									4		5
Ovenbird	5	70	16	6	23	1	50	9	34	42		34	6	3		299
N. Waterthrush		9	2			1	3	1	5			2		7		30
La. Waterthrush	1	7	2	1	13		13		3	6		3	1	1	2	53
Kentucky Warbler		9		1	4		2	*	3	3		4	1	12	*	39
Connecticut Warb.			1						1							2
Com. Yellowthroat	1	140	101	73	35	10	73	5	81	72	5	49	16	31	10	702
Hooded Warbler	3	39	17	3	1		25	5	12	23		26	*	12		166
Canada Warbler	6								1				*	1		8
Yellow-br. Chat		59	4	7	6	5	51		15	27	4	14	5	17	3	217
Summer Tanager		68	20	5	17	3	51		35	36	2	22	4	19	10	292
Scarlet Tanager	1	92	11	17	3	3	41	8	31	9	5	9	13		12	255
Northern Cardinal	11	450	217	334	47	99	205	22	188	132	20	118	184	88	139	2254

Species	AVNC	CPNC	DUNC	GRNC	GVNC	ICNC	JLNC	NRNC	RANC	RVNC	SHNC	SPNC	WSNC	CGSC	SPSC	TOTAL
Rose-br. Grosbeak	4	12	1	11		18	12	8	9	4		13	13		*	105
Blue Grosbeak		28	16	6	33	14	48		18	35	11	33	4	15	30	291
Indigo Bunting	2	136	10	41		70	127	28	59	61	15	10	31	49	62	701
Painted Bunting					40									5		45
Dickcissel														1		1
Eastern Towhee	18	190	135	98	35	21	97	26	78	44	4	63	58	70	30	967
Bachman's Sparrow							2					5			*	7
Chipping Sparrow	2	77	87	58	35	40	48	23	44	71	22	40	30		56	633
Clay-colored Spar.					1											1
Field Sparrow		30	86	15	28	30	60	10	2	31	7	11	15	7	22	354
Vesper Sparrow															1	1
Savannah Sparrow		2	1		5			5	1	10			8	6	3	41
Grasshopper Spar.			4	2	15	11		2	4	9	1		2		16	66
Henslow's sparrow					3											3
Song Sparrow	13	6	29	99		17	1	35	1		4		37		10	252
Swamp Sparrow		10	38	6						2		1				57
White-thr. Sparrow		39	272	23	9	4			15	18	1	4	35	1		421
White-cr. Sparrow											1					1
Dark-eyed Junco	68							3	1							72
Bobolink		72			36	2	86				20		2	111	60	389
Red-w. Blackbird	5	91	115	89	130	61	67	40	86	87	15	58	95	53	55	1047
Eastern Meadowlark		15	28	29	58	101	42	11	37	62	20	49	10	7	53	522
Rusty Blackbird		1														1
Common Grackle	26	326	339	716	187	199	210	24	273	162	37	109	430	238	251	3527
Br. -headed Cowbird		81	106	45	40	39	68	7	75	79	2	28	91	21	25	707
Orchard Oriole		9	9	13	25	3	19	5	17	37	3	28	10	33	3	214
Baltimore Oriole		17		19			4	8	8		1	2	11	1	1	72
Purple Finch			1	1									*			2
House Finch	6	149	43	119	21	41	25	7	39	27	10	61	48	11	45	652
Pine Siskin	9				1											10

Species	AVNC	CPNC	DUNC	GRNC	GVNC	ICNC	JLNC	NRNC	RANC	RVNC	SHNC	SPNC	WSNC	CGSC	SPSC	TOTAL
American Goldfinch	7	277	99	259	53	140	127	82	143	65	30	73	195	11	17	1578
House Sparrow	3	77	43	62	57	25	29	4	80	29	1	7	24	10	16	467
No. of Species	57	122	122	127	135	104	120	105	129	117	85	128	119	105	104	210
No. of birds	443	9184	6823	7435	3736	3266	5961	1231	5906	3998	739	3682	3874	2413	3451	62142
Total Hours	17.5	147.3	70.5	105.5	33	41	126.3	23	75	58.25	8	72.75	75	24.25	62.5	939.85
Hours on foot	7.5	105.8	54.75	63	21	14	96.75	15	63	26.75	2	37.25	59.75	6.75	26.25	599.55
Hours by car	10	36.5	15.75	42.5	12	27	20.5	3	12	31.5	6	35.5	15.25	17.5	36.25	321.25
Hours by boat	0	5	0	0	0	0	9	0	0	0	0	0	0	0	0	14
Hours by ATV	0							5	0							5
Hours Owling	0	2	2	0	2	0	2.7	2	2	1.5	0	2	1.25	0	2	19.45
Total miles	95	379.5	210	469.5	173	283.5	280	57	138	380.75	40	365	162.5	189	319.5	3542.25
Miles on foot	4	76.5	44	45.5	16	13.5	63	15	49	19.75	3	25	33.5	6	21	434.75
Miles by car	91	301	166	424	157	270	212	35	89	361	37	340	129	183	298.5	3093.5
Miles by boat	0	2	0	0	0	0	5	0	0	0	0	0	0	0	0	7
Miles by ATV	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	7
Miles Owling	0	2			4	0	8	0.5	0	2	0	0.5	1	0	25	37
Date	10-May	4-May	27-Apr	3-May	4-May	4-May	10-May	10-May	10-May	3-May	4-May	4-May	3-May	3-May	10-May	

General Field Notes

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First Record of Black Guillemot in North Carolina

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On 24 April 1993 during the Wilmington, NC, Spring Bird Count, a Black Guillemot (*Cepphus grylle*) was found along the north jetty of Masonboro Inlet at Wrightsville Beach, NC. Hardwick and Galizio discovered the bird at dawn and studied it closely from a boat for over an hour. After concluding that it was indeed a Black Guillemot, Parnell was notified and was able to observe the bird later that day. During the week of 25 April the bird was subsequently seen by many observers, but no recognizable photographs were obtained. The bird was last seen on 30 April.

The bird was in first-winter plumage as described by Harrison (1983). We noted dark wings with a clear white wing patch. The bird's mantle and back were white with some mottling. The head and neck were mostly white with a dark crown, nape, and eye patch, and a black bill.

The bird usually stayed on the water in close proximity to the rock jetty, dabbing at the algae that covers the rocks. It was wary and dove on approach. Through extended observation, however, we were able to see the white underwing and red legs at close range when the bird preened and lifted its wings. All three of the authors are familiar with Black and Pigeon Guillemots (*Cepphus columba*) and concluded that this bird was a Black Guillemot, particularly because of its white underwing coverts.

Although Black Guillemots normally winter in the northwestern Atlantic, they are described as casual south to Long Island and New Jersey by Harrison (1983). There are at least three sightings of Black Guillemot from South Carolina (Potter, Parnell, and Teulings, 1980), including a recent find documented with a photograph (Buerger, 1993). However, we have been unable to find any prior reports from North Carolina.

The North Carolina Bird Records Committee accepted the written description of this bird provided by Sam Cooper, placing the species on the Provisional list (North Carolina Bird Records Committee, 1994).

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Mobbing of South Polar Skua by Cory's Shearwaters off the North Carolina Coast

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In the ornithological literature, mobbing is a poorly understood phenomenon involving the collective harassment of predatory or kleptoparasitic birds by potential prey or victim species. Mobbing has not been recorded in Procellariiformes, despite voluminous literature on this group (*e.g.*, Warham 1990, 1996, 1997). It was therefore of interest when a small party aboard the *Country Girl* observed the repeated harassment of a South Polar Skua *(Catharacta maccormicki)* by some 7-15 Cory's Shearwaters *(Calonectris diomedea)* on 7 June 1993, at 35° 21' N, 74° 55' W, from 1015 until 1028 EDT.

As the boat neared a group of 45 Cory's and 12 Greater *(Puffinus gravis)* Shearwaters feeding in a tight formation, or "beehive," over large predatory fish, we noticed the approach of a juvenile South Polar Skua from the southeast. The bird made an inconspicuous approach in direct-line flight at least 200 m in distance, about 0.5 m above the ocean's surface. As the skua came within several m of the shearwater group, it rose sharply and began stooping on the birds in an effort to force regurgitation (Figure 1; note extreme distension of the neck in the pursued Cory's Shearwater). Of 36 passes, 32 originated from above the shearwaters, as is typical of the genus (Furness 1987, Nelson 1979), whereas four passes were on level terms with the shearwaters (as in Figure 1). Two attacks involved mid-air collisions of apparently considerable force, and about eight resulted in a Cory's Shearwater literally crashing into the water from a height of 1-2 m.

The shearwaters' response to the attack initially showed no coherent, coordinated evasive maneuver: all simply scattered very short distances in different directions. Three times, however, the skua left the group, continuing a low-altitude, direct flight. On all three occasions, small groups (7, 15, 15) of Cory's Shearwaters pursued the skua in single file (once) or V-formation (twice). The shearwaters, joined on one occasion by a Greater Shearwater, flew in a manner not obviously caused by agitation, but their pursuit was in very low (less than one m above the ocean's surface), direct-line flight with very shallow, rapid wingbeats, reminiscent of a small jaeger's flight. The shearwaters were able to keep up with the skua and nearly to overtake it by means of this mode of flight. I have observed this style of flight only rarely, usually by single Cory's that are having difficulty passing Cape Hatteras Point (Dare County) during southeasterly gales.

In the first two departures noted above, the shearwaters' aggressive behavior, apparently a form of mobbing, was met with remounted attacks from the skua. The skua rose rapidly several m, turned on its pursuers, and commenced battering them as before. On the third departure from the group, the skua could not be relocated. Only once was the skua able to force food from a Cory's, but it did not recover the regurgitant from the ocean.

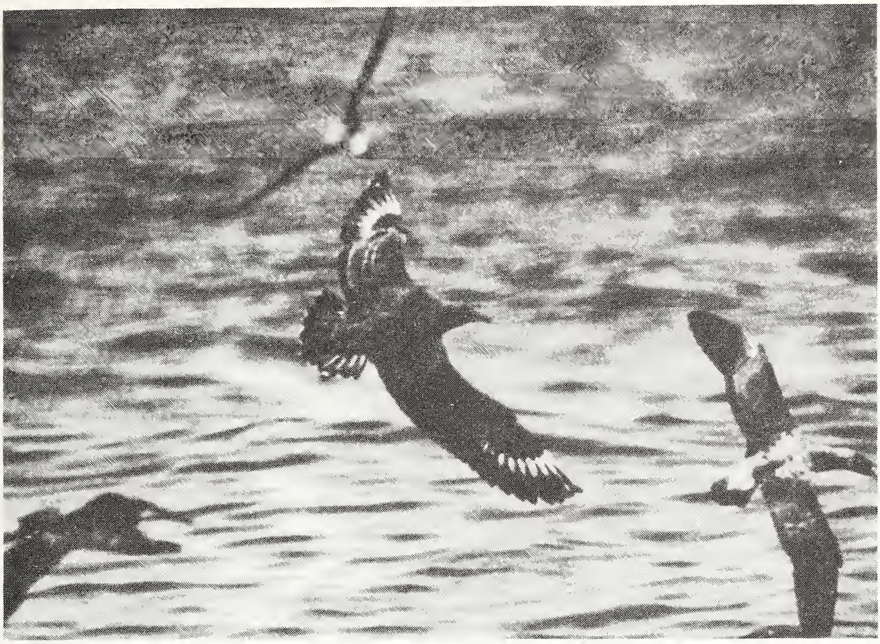

Figure 1. South Polar Skua (Catharacta maccormicki) attacks Cory's Shearwater (Calonectris diomedea) off central North Carolina at approximately 35° 21' N, 74° 55' W. 7 June 1993. Photograph by Alan Brady.

In most instances in which South Polar Skuas have been observed in the vicinity of shearwaters off the coast of North Carolina, the species is occupied with the pursuit of larger shearwaters (T. Hass, B. Patteson, pers. comm.; pers. obs.). A juvenile light-morph South Polar Skua observed on 8 August 1994 was exceptional in our experience in favoring Audubon's Shearwaters *(Puffinus lherminieri)*, even though numbers of Cory's were present. This individual, and another observed by Brian Patteson and others on 18 June 1994, pursued adult White-tailed Tropicbirds. In both cases, the tropicbirds unsuccessfully attempted to ascend skyward more rapidly than the skua (see Brinkley 1994). Subsequently, twice in August 1997, Patteson, Grayson Pearce, and the author observed attempted mobbing of single subadult Pomarine Jaegers *(Stercorarius pomarinus)* by Black-capped Petrels *(Pterodroma hasitata)*. In both cases, small groups (5-10) petrels rose from the ocean's surface or moved toward the jaeger with a level, direct flight style similar to that described for Cory's Shearwater. In neither case was the mobbing clearly coordinated, nor did the petrels reach the jaeger, such that no further behavioral interactions were noted.

It is unclear what advantage mobbing might have in a situation such as the one described. A predatory bird with the agility and aggression of a skua would seem unlikely to modify its behavior as a result of collective harassment, and the Cory's Shearwaters expended valuable energy reserves in this powered flight style. As Trivers (1972) points out, expenditures of time and energy are probably less important for assessing behavioral costs than is risk. Several authors (Sordahl 1990, Curio and Regelmann 1986) have argued that mobbing and distraction behavior represent significant risks, although risk as such is very difficult to study and quantify. (As skuas are known to have eaten shearwaters, some risk to Cory's Shearwaters was probably present on 7 June 1993.) Instances in which mobbers are attacked or killed abound in the anecdotal literature (reviewed in Sordahl 1990), but in the overwhelming majority of cases, mobbing and distraction are parental responses to perceived threats (Shedd 1978). The “move on” hypothesis of mobbing states that “a predator should leave an area the sooner, the more intensely, and/or the longer it is molested" (Zimmerman and Curio 1988, Hennessy 1986) and that it is less likely to renew its attacks (Curio 1978).

At first this seems to have little explanatory power in the context of nonbreeding Cory’s Shearwaters' mobbing of a skua, a situation of apparent risk and low effectiveness. However, because Cory's Shearwaters off North Carolina are dependent upon patchy and short-lived resources (Haney and McGillivray 1985, Haney *et al.* 1992), the advantages of quickly discouraging kleptoparasitic activity may be worth the risk involved. Zahavi (1977) asserts that self-endangering behavior may serve as a “bluff” to suggest the gravity of the mobbers’ threat (see also Maynard Smith and Parker 1976). Inasmuch as the skua eventually left the area, the latter explanation may be the most plausible. In the five years of intensive field study of seabirds aboard the *Miss Hatteras* and the *Country Girl* in this decade, no other instances of mobbing behavior have been noted.

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Sharp-tailed Sandpiper Observed in Orangeburg County, South Carolina. The First Sight Record for South Carolina.

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On the afternoon of 24 July 1994, we were birding on the main sod farms of the Supersod Corporation, near Orangeburg, Orangeburg County, South Carolina. Birding was very good, since rain showers during the preceding 24 hours had produced a fallout of shorebirds, including approximately 300 Killdeer (*Charadrius vociferus*), 6 Greater Yellowlegs (*Tringa melanoleuca*), 4 Lesser Yellowlegs (*T. flavipes*), 6 Solitary Sandpipers (*T. solitaria*), 2 Spotted Sandpipers (*Actitis macularia*), 9 Upland Sandpipers (*Bartamia longicauda*), 5 Semipalmated Sandpipers (*Calidris pusilla*), 15 Least Sandpipers (*C. minutilla*), approximately 100 Pectoral Sandpipers (*C. melanotos*), and one Stilt Sandpiper (*C. himantopus*).

At about 1420 hrs., we returned to a rain pool along Supersod Boulevard where, an hour or so earlier, there had been an adult Stilt Sandpiper. This rain pool lay about 15m from the roadside. We noticed three medium-sized sandpipers in or near this muddy rain pool. Two were obviously Pectoral Sandpipers. The third bird was about the same size and shape as the pectorals, but it immediately struck us as something different. This bird was slowly walking in grass along the near side of the rain pool, so that we could see its head and back well; but its front, breast, and undersides were hidden, for the most part.

The most striking thing about the bird's appearance was the coloration of its head. It had a bright chestnut or rufous crown, with indistinct brown-black fine streaks. It had a very bold, white eyeline which was noticeably more pronounced behind the eye, though it was quite bold in front of the eye as well. The bird's back was quite striking as well. Its mantle and covert feathers were brown, but with marked chestnut and white feather edging. The white edging combined to give the effect of several white lines running down the back.

With the bird present, we started looking through the books we had with us, including *Field Guide to the Birds of North America* (Nat. Geographic.

Soc. 1983) and *Shorebirds: an Identification Guide to the Waders of the World* (Hayman *et al.* 1986). We became convinced the bird was a Sharp-tailed Sandpiper (*C. acuminata*), but we had not yet seen the breast.

After several minutes, the bird emerged from the tall grass. We could see that its legs were dull yellow-brown (or brownish-yellow). The bird turned towards us briefly; and we could see its breast was white, except for a slightly darker smudgy area on the throat. This smudgy area had some fine streaking, but it was confined to the throat. There was no sharp demarcation of streaking between the upper and lower breast, as on Pectoral Sandpipers. The bird had a few indistinct dark marks down the sides of its breast, but the middle of the breast was white. After about 30 seconds in the open, all three birds spooked and flew away without giving a call. In flight, we could not tell the Sharp-tailed from the two Pectorals. During our observations, we heard no calls. We did not notice the pattern of the tail feathers, nor did we see clearly the undertail pattern. We could not relocate the bird.

Everything we saw was consistent with a non-breeding adult Sharp-tailed Sandpiper. We saw no bold chevrons on the side of the breast, which would indicate a breeding adult, and the upper breast was too dull to be that of a juvenile. Our bird closely resembled the picture of a non-breeding adult Sharp-tailed Sandpiper as seen on Plate 34 of *A Field Guide to the Birds of Australia* (Pizzey 1980). While we are very familiar with the Pectoral Sandpiper, our experience with the Sharp-tailed is limited to the sighting of one juvenile seen by many on 22 September 1984 at Chincoteague National Wildlife Refuge, Virginia.

During the next few days, dozens of birders sought the Sharp-tailed Sandpiper with mixed success. Peter Worthington relocated the bird on 28 July, and David Wright found it on 30 July. We are not aware of any definite sightings after 30 July. These sightings constitute the first sight record of Sharp-tailed Sandpiper for South Carolina.

[Ed. Note: The South Carolina Bird Records Committee accepted these sightings as valid and has placed the Sharp-tailed Sandpiper on the South Carolina Provisional List.]

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(All Dates Summer 1997)

Note: I rely in part on sightings reported in Carolinabirds. Please don't, however, rely on me to pick up your sightings from Carolinabirds. Instead, please also send your sightings directly to me.

COMMON LOON: An adult was picked up live in Camden, Kershaw Co., SC, June 18 by Jimmy Wood, *fide* Bob Wood. The bird later died at the Columbia Zoo. Another summer occurrence involved an immature on Lake Julian, Buncombe Co., NC, during July, as noted by Wayne Forsythe.

EARED GREBE: One (still in alternate plumage) returned to the Goldsboro, NC, Wastewater Treatment Plant by July 16 (Eric Dean).

FEA'S PETREL: Only one was reported during the summer pelagic period - out of Oregon Inlet, NC, July 28 (Brian Patteson *et al.*).

HERALD (TRINIDADE) PETREL: Two dark morphs were recorded out of Oregon Inlet, NC, July 21 (Patteson *et al.*) for the only sighting this summer.

WILSON'S STORM-PETREL: Out-of-place sightings included two in the Cape Fear River in the Southport - Ft. Fisher, NC, area June 14 (Will Cook, Franchesca Perez, Ricky Davis), and four just off the Sportman's Pier, Atlantic Beach, NC, June 17 (Jim Ward).

BAND-RUMPED STORM-PETREL: In what is possibly a record one-day count for this species, an impressive 102 were tallied out of Hatteras, NC, July 27 (Patteson *et al.*).

WHITE-TAILED TROPICBIRD: Two adults were found out of Hatteras, NC, July 26 (Patteson *et al.*) for the only report.

MASKED BOOBY: An immature spent the entire afternoon just off Figure Eight Island, NC, on June 21 (Derb Carter). This individual rested on the water most of the time but was not seen the next day.

NORTHERN GANNET: Summer records of gannets are rare but almost annual. This year an immature was at Caswell Beach, NC, throughout most of June (sev. ob.), and one was picked up live on the beach at Duck, NC, July 23 (*fide* John Fussell), but it later died.

MAGNIFICENT FRIGATEBIRD: This species is seen somewhere in the Carolinas every year, and this season continued the recent trend of multiple sightings. One was seen well (and photographed) at Ft. Caswell, NC, June 14 (Brad Carlson, Will Cook, Franchesca Perez); one was at Myrtle Beach, SC, June 25 (Phil Turner, *fide* Jack Peachey); one was at Litchfield Beach, SC, July 4 (Barbara Maxwell); and two were at Ft. Caswell, NC, late July (Douglas Cutting).

GREAT BLUE HERON: Another new nesting location for the piedmont included four nests at a site near Kerr Lake, Vance Co., NC, as noted in late June by Jeff and Anne Pippen.

LITTLE BLUE HERON: A post-breeding wanderer occurred far to the west at Glen Cannon, Transylvania Co., NC, from July 1-15 (Betty McIlwain, sev. ob.).

SNOWY EGRET: Two were locally uncommon summer visitors at the Silver Bluff Audubon Sanctuary, Jackson, SC, July 27-29 (Carol Eldridge).

REDDISH EGRET: Once again this species dispersed into the Carolinas in good numbers. Two (1 adult, 1 immature) were at Harbor Island, SC, from June 17 through July (Judy Halleron, sev. ob.); one was at the south end of Litchfield Beach, SC, July 28-29 (Bob and Barbara Maxwell); one was at Huntington Beach State Park, SC, June 19 (Jack Peachey); and one was at Sunset Beach, NC, July 31 (Greg Massey).

CATTLE EGRET: A locally good count of 35 was had near Fayetteville, NC, July 13 (Hal Broadfoot, Jr.).

WOOD STORK: An excellent inland count of 109 was at the Silver Bluff Audubon Sanctuary, Jackson, SC, July 29 (Carol Eldridge). Also, a new nesting rookery was found in upper Horry County, SC, in a tributary of the Waccamaw River about 5 miles from North Carolina (John Cely). This new site is easily the northernmost nesting site for the species in the Carolinas now.

WHITE-FACED WHISTLING-DUCK: An individual of this species (an obvious exotic), has been flying up and down North Carolina's Outer Banks from Hatteras all the way up to Pea Island (sev. ob.). The bird has been seen during the spring and summer, and while almost assuredly an escape, excitement has followed it wherever it has been found.

SUMMERING WATERFOWL: Lingering waterfowl included a Green-winged Teal all summer at the Savannah Spoil Site, Jasper Co., SC (Steve Calver); two Ring-necked Ducks at the Goldsboro, NC, Wastewater Treatment Plant (Eric Dean, sev. ob.); one Ring-necked at Rocky Mount, NC (Ricky Davis); one female Lesser Scaup at the Savannah Spoil Site, SC (Steve Calver); and an immature male King Eider was picked up on the beach at Kill

Devil Hills, NC, July 21 (*fide* John Fussell). The bird (which later died) provided a totally unexpected summer record for the state. This species is very rare even during the winter season!

SWALLOW-TAILED KITE: A good count included the 29 over a pasture along SC 125 south of the Savannah River Site, SC, July 22 (Dan Connelly, *fide* Anne Waters).

MISSISSIPPI KITE: Some noteworthy reports from the edge of the species' range in North Carolina included three at the usual Richardson Bridge, Johnston Co. area during the summer (sev. ob.) and three (1 adult, 1 sub-adult, 1 juvenile) that spent almost a week in Rocky Mount July 24-29 (Ricky Davis, Joyce and Steve Bennett, Jerry Robinson). These birds frequented Davis' backyard in the middle of town. The nearest known summering areas are at least 20 miles to the northeast!

SHARP-SHINNED HAWK: This species was reported more than normal this summer. One was in Asheville, NC, during June (Gail Whitehurst); one was at Conover, NC, July 8 (Phyllis Martin); one was seen at Hillsborough, NC, July 22 (Will Cook); one was at Florence, SC, July 28 (Steve Patterson); and a female with fledglings was seen July 11 at James Island, SC (Will Post) after being present since May. This was probably only the 2nd nesting record for coastal South Carolina.

COOPER'S HAWK: As this species continues to increase as a winter resident, summer reports have also been on the rise. This year one was on a nest in early June at Edenton, NC (Paris Trail); a pair fledged two young in Winston-Salem, NC, July 15 (Ramona Snavely, Marge Harter); three different birds were seen during the summer in Halifax Co., NC (Frank Enders); and one was in Chapel Hill, NC, June 23 and July 15 in the yard of Will Cook.

AMERICAN COOT: Six were found lingering south of Fayetteville, NC, June 7 (Hal Broadfoot, Jr.).

AMERICAN AVOCET: The summer peak at the Savannah Spoil Site, Jasper Co., SC, was 146 on July 12 (Steve Calver). This site consistently has the largest population of this species in the Carolinas.

BLACK-NECKED STILT: An excellent count of 539 was had at the Savannah Spoil Site, SC, July 12-14 (Steve Calver).

RUDDY TURNSTONE: Two were at Lake Crabtree, Wake Co., NC, July 24 (Doug Shadwick) for the only inland report.

WESTERN SANDPIPER: Inland reports included six at the Silver Bluff Audubon Sanctuary, Jackson, SC, July 17 (Carol Eldridge) and two at Lake Crabtree, Wake Co., NC, July 24 (Doug Shadwick).

WHITE-RUMPED SANDPIPER: A good count of 26 was had at the Savannah Spoil Site, SC, on June 13 (Steve Calver), rather late for spring transients. Also a fall migrant was early at Silver Bluff Audubon Sanctuary, Jackson, SC, July 17, as noted by Carol Eldridge.

RUFF: A white morph male was found at the Goldsboro, NC, Wastewater Treatment Plant July 16-18 (Eric Dean, m. ob.). This individual provided only the fourth inland record for North Carolina.

LONG-BILLED DOWITCHER: One seen and heard at the Silver Bluff Audubon Sanctuary, Jackson, SC, July 17 (Carol Eldridge) was very rare locally and quite early as a fall migrant.

WILSON'S PHALAROPE: The Savannah Spoil Site, Jasper Co., SC, had good numbers for June when 3-4 were there on the 13th and 20th. Then there were at least six present by July 23 (Steve Calver). This species is usually absent from the Carolinas during June.

RED-NECKED PHALAROPE: A very rare inland report involved an adult male found at a borrow pit in eastern Edgecombe Co., NC, July 20 (Ricky Davis).

FRANKLIN'S GULL: An adult in breeding plumage was very rare for the Carolinas when noted flying north along the beach at Figure Eight Island, NC, July 19 (Derb Carter).

HERRING GULL: One was late and unusual at York, Chester Co., SC, June 1 (Gail B. Ice).

LESSER BLACK-BACKED GULL: One was seen from the Aurora-Bayview ferry July 2 (Ned Brinkley), an unusual summer report for the date and location.

CASPIAN TERN: Two adults were at Davis Impoundment, Carteret Co., NC, June 22 (John Fussell), suggesting local breeding.

LEAST TERN: A nest with three eggs was located at Huntington Beach State Park, SC, June 19 (Jack Peachey, Paul Rogers), providing the first local nesting there in years. In North Carolina, at North Topsail, over 200 Leasts were observed at a new nesting colony at the new inlet cut by Hurricane Fran (Nell Moore).

EURASIAN COLLARED-DOVE: Another report from the western part of the Carolinas involved one seen in Weaverville, NC, in early June by Doug McCubbins, *fide* Will Cook. Now that this invading species has been found at all corners of the Carolinas, will it start being found in numbers? Only time will tell.

COMMON GROUND-DOVE: Since this species is just about gone from North Carolina, one found at Ft. Caswell June 14 (Brad Carlson) was noteworthy.

BLACK-BILLED CUCKOO: This species staged an invasion into several areas of mainland Dare Co., NC, this spring. Of these, many remained for the summer. At the Dare Co. Air Force Bombing Range, John Fussell noted calling birds at 26 different sites from mid-May to early July! Of these, at least 8 sites had birds calling and/or responding to tapes throughout the summer until the end of July. In spite of all this, no actual nesting or young were observed.

WILLOW FLYCATCHER: One was late and uncommon at Umpstead State Park, Wake Co., NC, June 5 (Susan Campbell).

"TRAILL'S" FLYCATCHER: An individual of this species complex was banded at Charleston, SC, on the extremely early date of July 16 (Will Post). This must surely have been a non-breeding summer wanderer.

GRAY KINGBIRD: The two kingbirds that returned to Ft. Caswell, NC, during the spring were present there until late June. Wayne Irvin photographed a nest with two eggs (with only one bird present) on June 21, but no definite nesting success was observed there this year.

TREE SWALLOW: Nesting of this species in the Carolinas is always local and noteworthy. This season's reports included one pair nesting at Lake Russell, SC, in June (Don & Steve Cox); up to four including fledged young at Asheville, NC, July 5 (Simon Thompson); and at least eight at the Bluff Unit, Santee NWR, SC, June 18 (Lex Glover, David Dobson).

BANK SWALLOW: Late migrants included one along the Mashoes Rd., Dare Co., NC, June 1 (Jeff Lewis) and one at Rock Hill, York Co., SC, June 8 (Robin Carter, Caroline Eastman).

HERMIT THRUSH: At least five were heard singing all summer on Roan Mt., NC (Rick Knight); an area where actual breeding evidence has not been observed yet, even though the birds have been present for several years now.

CEDAR WAXWING: This species in notorious for summering along the eastern edge of its normal breeding range. This year some of the more intriguing reports included 2-3 all summer along the coast at Stumpy Pt., Dare Co., NC (John Fussell); two adults feeding recently fledged young at Zebulon, NC (Ricky Davis); and a pair near Apex, NC, June 18-22 (Merrill Lynch). Also a flock of 30 in Pendleton, SC, June 1 was quite large for such a late date, as noted by Sid Gauthreaux, Jr. and Carroll Belser.

LOGGERHEAD SHRIKE: One was unusual and locally rare at Sunset Beach, NC, July 31 (Greg Massey).

WARBLING VIREO: Two separate individuals were heard at the Bluff Unit, Santee NWR, SC, June 15 (Lex Glover, Roger Smith, Tom Hankins). This location is well known for its small disjunct population of the species.

MAGNOLIA WARBLER: A male was observed singing at the Mt. Pisgah, NC, campground June 28-29 by Paul Johnson. This species is very localized in our mountains, and this sighting was probably of a wandering, non-breeding bird.

YELLOW-RUMPED WARBLER: A singing male was found at Roan Mt., NC, July 4 (Rick Knight) in an area not far from where the species nested in 1993! Could this be part of a developing regular pattern?

BLACKPOLL WARBLER: Late spring migrants included one at Carolina Sandhills NWR., SC, June 2 (Steve Patterson) and one in Union, SC, June 8 (Robin Carter, Caroline Eastman).

AMERICAN REDSTART: Two pairs were observed near the dam at Lake Waccamaw, NC, June 14 (Ricky Davis) in an area where breeding is quite local.

OVENBIRD: Breeding season reports near the edge of the nesting range in South Carolina included one banded at Congaree Nat. Monument, Richland Co. June 12 (Lex Glover, John Cely) and one singing at Santee NWR in June (Dennis Forsythe).

NORTHERN Waterthrush: One was probably a very early migrant at Leland, Brunswick Co., NC, June 28-29 (Greg Massey).

HOODED WARBLER: A singing male was on Roanoke Island, NC, June 10, as noted by Jeff Lewis. Was this evidence of local breeding in an area where not normally found during summer?

DICKCISSEL: The usual smattering of summer reports included one male singing near Chester, SC, June 3 (Gail B. Ice); three in northern Laurens Co., SC, June 21 (Lex Glover); several west of Shelby, NC, until at least June 26 (JoAnn Martin); and four males singing at the VOA-B site, Pitt Co., NC, July 2 (John and Paula Wright).

DARK-EYED JUNCO: A male made a brief visit to a feeder in Hemingway, SC, on the absurd date of July 7 (Bo and Carol Lawrimore, David Donmoyer). One can only wonder what this bird was doing away from the breeding grounds at this time of year.

BOBOLINK: Breeding season records of this species are always noteworthy in the Carolinas. This year a group of 12 (6 males, 6 females) were present in a large field near Glendale Springs, Ashe Co., NC, during June (Will Cook *et al.*). This same area had a pair last year, and once again, no actual breeding evidence was observed.

SHINY COWBIRD: Reports of this invading species included two males at Harbor Island, SC, June 5 until at least July 12 (Judy Halleron, m. ob.) and two males at Stumpy Pt., Dare Co., NC, July 9 (John Fussell, Jeff Lewis).

RED CROSSBILL: This species continues to be found in the mountains at several localized spots. A good count of 12 were at the usual Mt. Mitchell, NC, Restaurant spot June 23 (Faye Metzl); six were along the Parkway between Devil's Courthouse and Haywood Gap June 28 (Russ and Patricia Tyndall); one was at the Mt. Pisgah, NC, campground June 28-29 (Paul Johnson); and up to eight were at Roan Mt., NC, June 23-July 21 (Rick Knight).

CORRIGENDUM: The location for the **Yellow-throated Warbler** reported on Feb. 28, 1997 (Chat 61:3, p. 229) should be Havelock, NC, and not Dare Co., NC.

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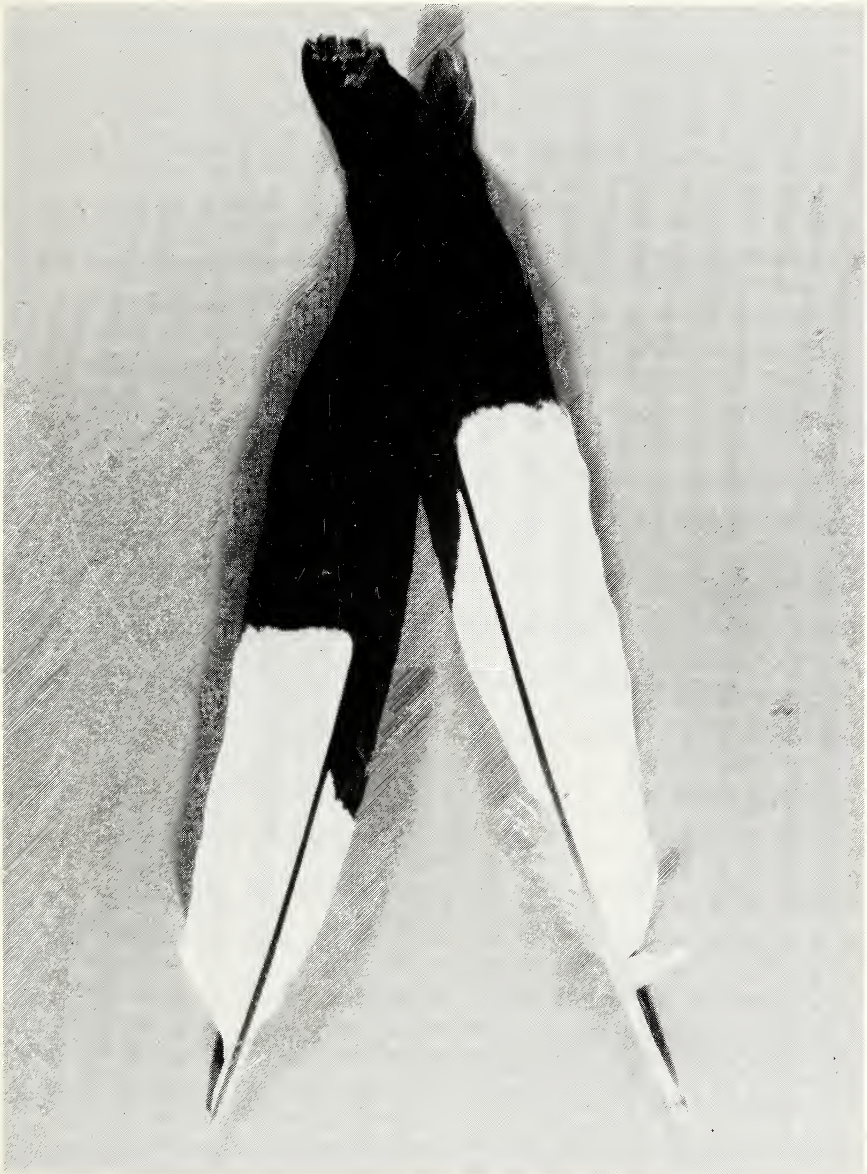

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Articles

Marine Birds off the Coast of North Carolina: a Critique. *Michael H. Tove, Harry E. LeGrand, Jr., Edward S. Brinkley, Richard J. Davis, and J. Brian Patteson* 49

A Response to Tove *et al.* (1998), Marine Birds off the Coast of North Carolina: A Critique. *David S. Lee* 63

1997 Spring North American Migration Count in South Carolina. *Robin M. Carter* 75

1997 Spring North American Migration Count in North Carolina. *Dennis Burnette* 100

Briefs for the Files, Fall 1997 126

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Marine Birds off the Coast of North Carolina: a Critique

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A recently published paper by Lee (1995) summarized the status of seabirds along and off the North Carolina coast. The paper combined a fifteen-year pelagic survey (1975-1989) by Lee with select additional records by other observers both prior to and after 1989. Unfortunately, the paper has many serious problems:

(1) Lee inadequately reviewed the ornithological literature and omitted numerous well-documented observations and important papers.

(2) Lee entirely disregarded the work and decisions of the Carolina Bird Club's North Carolina Bird Records Committee (hereafter, NCBRC). The NCBRC is nationally recognized as *the* official committee for North Carolina and is sanctioned by the Carolina Bird Club. It maintains the official North Carolina bird list which is updated annually in *The Chat*. Rather than defend his position on records the NCBRC judged to be incorrect, he proceeded as if those efforts never occurred.

(3) Many of Lee's species accounts and conclusions are inconsistent with our collective observations and research, based on over 400 trips since 1970.

(4) Lee used one standard for his own records and another for others. For example, he complained that reports of regularly occurring species (*e.g.*, Parasitic Jaeger, White-tailed Tropicbird, etc.) have been included in the literature without published details, the implication being that because these records are unsubstantiated, they are unreliable. In doing so, he ignored the fact that these species are seen too frequently to warrant publication of details. Conversely, he then cited his own sight records of the same species without ever publishing details. Even worse, when extraordinarily rare species were

involved, Lee merely discussed the status or implications of the sighting without providing any description for documentation (*e.g.*, Cape Petrel).

(5) Lee referred to species as being "common," "uncommon," or "rare" without consistency in his use of such terms. In some cases, species he listed as "rare" were described as being more numerous than some he listed as "uncommon." While such terms are already imprecise, Lee's inconsistency is even more confusing.

(6) Lee employed misleading statistical methods. His bar graphs, representing the occurrences of 18 species by simple means ("Mean Number Birds Sighted/Trip") is a poor statistical measure given the very small number of sample days. Under these circumstances, great biases can result from one particularly good or bad day. For example, on a hypothetical 9 trips, 9 to 11 individuals of a given species are seen each trip (average 10 per trip) and then, on one trip, a remarkable 910 birds are counted. The mean of these 10 trips would be 100, ten times the typical count and a clear misrepresentation of the norm. This sort of statistical misrepresentation occurred in nearly half of the species he graphed. Lee would have been better served by selecting a method that minimized the effect of extreme data points.

The following is a species-by-species account of the major errors in the Lee (1995) paper. We refer to the following terms which seem to have confused definitions by Lee: A *report* is a claim by an observer of what, where and when and is not necessarily considered correct. A *record* is report that has been reviewed and accepted as reliable. Traditionally, this review is by a recognized, official records committee such as the NCBRC. Finally, to avoid repetition of the principal literature citation (Lee 1995), hereafter, only page numbers are cited.

Yellow-nosed Albatross (*Diomedea chlororhynchos*)

Lee (p. 119) listed two reports that "were probably Yellow-nosed Albatrosses." The NCBRC (1990, p. 53) gave an Unaccepted Sighting verdict to both of these reports. In fact, the NCBRC was uncertain that either of the two birds were albatrosses of any kind. No other reports have been received by the NCBRC, and there are no accepted records of this species from North Carolina.

Black-browed Albatross (*Diomedea melanophris*)

Lee (p. 119-120) correctly cited one record of this species but then stated that the "North Carolina sightings [of albatrosses] are not adequate for specific identification, and records for neither species [Yellow-nosed and Black-browed] have been accepted by the state's bird record committee." Not only does this latter statement contradict his earlier comments on "Yellow-nosed Albatross," it is incorrect. The NCBRC (1990, p. 53) accepted the single sight record of two birds off Morehead City on 19 August 1972 (Dumont 1973). The species is on the Provisional List, as no photographs or specimens exist.

Northern Fulmar (*Fulmarus glacialis*)

Lee (p. 120) correctly stated that "the species is often common in April and late October." His graph, however, shows means of perhaps only three to five birds per trip at these times, and he failed to explain the discrepancy.

Cape Petrel (*Daption capense*)

Lee (p. 121) referred to his own second-hand report (Lee 1986b), which the NCBRC considered an Unaccepted Sighting (NCBRC, 1990). Not only did Lee (1986b) provide no description of the bird, none was written by the observer, a fisherman who was unskilled in such identifications. We interviewed the fisherman about the sighting and are convinced that the bird in question was a shearwater, either partially albinistic or in heavy molt. Lee cited the report of the American Ornithologists' Union (1983), as supporting the occurrence of Cape Petrel but ignored the fact that the same citation stated that *none* of the various reports of this species from the Northern Hemisphere were acceptable. At the time Lee wrote his paper (and currently), this opinion had not been revised (American Ornithologists' Union 1995).

Black-capped Petrel (*Pterodroma hasitata*)

Lee's bar graph (p. 122) showed maximum average daily counts of fewer than 10 during June, fewer than 20 during July and August, and fewer than 5 during September. Since at least 1987, we have routinely seen 50 to 150 birds from late May through September. Lee's tabulation of maximum counts also overlooked many high counts, including: 212 on 31 July 1993, 177 on 5 June 1993, 165 on 20 August 1994, and others that Brinkley has provided to Lee. Moreover, Lee's statement that the species was "undocumented in the state prior to 1976" (p. 121) is inaccurate. *American Birds* mentions at least four North Carolina sightings from 1972 to 1975 (27:41-42; 28:37; 29:958; 30:51).

Bermuda Petrel (*Pterodroma cahow*)

At the time of Lee's paper, the NCBRC had not accepted any sight record of this species from North Carolina. Indeed, it was not even documented from North America (see Wingate *et al.* 1998). The NCBRC earlier (NCBRC, 1990,

p. 53) gave an Unaccepted Sighting vote to a 1983 report by Lee (1984, p. 159), largely due to lack of substantiation and convincing details. A multiple observer sighting of a bird off Hatteras on 26 May 1996, which was photographed by Patteson (Wingate *et al.* 1998) is the only confirmed North American record to date. At least some of several other unconfirmed sightings (see Wingate *et al.*, 1998), however, may correct.

Soft-plumaged Petrel (*Pterodroma mollis*)

In spite of the fact that Lee (p. 123) places quotes around the name "*mollis,*" the account still mistakenly refers to the Southern Hemisphere species Soft-plumaged Petrel (*P. mollis*) rather than the generic species complex. In his original article, Lee (1984) refused to speculate as to which species he saw. Since the soft-plumaged petrel complex was split into three species (Bourne 1983), however, the error is misleading. The species name (with or without quotes) used by Lee refers specifically to the nominate species, which has never been documented in the Northern Hemisphere. The two remaining species, Fea's Petrel (*P. feae*) and Zino's Petrel (*P. madeira*), breed in the North Atlantic. Lee's own description of a bold pale rump eliminated the species Soft-plumaged Petrel as a possibility (see Enticott, 1991, Tove 1997a), and Tove (1997b) felt that the details provided were strongly suggestive of Fea's Petrel. Moreover, Lee's statement (p. 125):

> the criteria under which [the members of the species complex] are evaluated do not lend themselves to identification through the general methodologies of birdwatchers

is untrue and ignores a body of literature on the field identification of these species (*e.g.*, Carter 1989, Fisher 1989, Madge 1990, Enticott 1991). More recently, Tove (1997a) summarized the taxonomy, distribution, and identification of the members of the complex, and (Tove 1997b) documented 16 different individual Fea's Petrels from North Carolina between 1991 and 1996. Neither Zino's nor Soft-plumaged Petrel has ever been reported from North America, much less North Carolina. Finally, Lee's lengthy admonition against collecting members of this group was particularly odd since the *only* active collecting of seabirds from North Carolina in the past 20+ years has been by Lee himself.

Herald Petrel (*Pterodroma arminjoniana*)

Lee (p. 125) incorrectly stated that “all sightings have been of single birds." There were two records of multiple individuals prior to publication of his paper: On 22 May 1991, two birds were seen off Hatteras, one of which was photographed (Am. Birds 45:433, 511; Mullarney, McGeehan, Constantine, pers. comm.), and on 29 May 1994, three were seen and photographed off Hatteras (Chat 59:71).

Bulwer’s Petrel (*Bulweria bulwerii*)

Lee (p. 125) cited Haney and Wainwright (1985, p. 869) who wrote that “Lee . . . briefly observed a bird fitting the description of this species [Bulwer’s Petrel] off North Carolina." Not only have details of this 1979 sighting *never* been published, but Lee never even mentioned this sighting in his previous summary papers which included other unconfirmed reports of pelagic birds (Lee 1984, 1986a). If this sighting was so uncertain as to be unworthy of mention along with other speculative observations, it should not be introduced here. The only accepted record of this species from North Carolina was a single bird seen on 1 July 1992 by Todd Hass (NCBRC 1994, p. 85).

Cory’s Shearwater (*Calonectris diomedea*)

Lee’s (p. 126) bar graph showed Cory’s Shearwater reaching its peak abundance in late July. We consistently find the species at its greatest abundance during August and September when, typically, hundreds and sometimes thousands are seen daily.

Greater Shearwater (*Puffinus gravis*)

Lee (p. 127) omitted from his bar graph the latter half of May and the first half of June, when the species is regularly present. Even though the peak of occurrence may well occur in late July, the peak is not nearly as skewed as he portrayed. The species is often just as numerous in August as in July. This species does, however, exhibit substantial fluctuation in abundance from one year to the next. Thus in some years it might be “common to abundant,” as Lee stated, while in other years, only "uncommon to fairly common." On average, it is probably best considered to be "fairly common to common."

Sooty Shearwater (*Puffinus griseus*)

Lee (p. 127-128) failed to mention several massive northbound counts reported along North Carolina beaches in late May. These include an estimated 8000 seen on 27 May 1972 (Am. Birds 26:748), 1800+ on 31 May 1970

(Buckley 1973), and 700+ on 1 June 1970 (Buckley 1973). He has also omitted an inland report from Twin Oaks, Allegheny County, in August 1939 (Ball 1948).

Manx Shearwater (*Puffinus puffinus*)

The graph (p. 129) for late March is artificially skewed by the results of a single trip, when Lee reported an unprecedented 42 birds on 16 March 1984.

Little Shearwater (*Puffinus assimilis*)

Lee (p. 130) correctly stated, "This species has not been confirmed as occurring in North Carolina," but he then contradicted himself by listing five sight reports for the state which he treated as factual. None of these was accepted by the NCBRC, and the species is not even on the state's Provisional List. The NCBRC (1990, p. 54) gave an "Unresolved Status" to a December 1984 report by Lee because it was insufficiently documented to be judged and no further details have been provided. This report, however, is widely regarded as incorrect.

Moreover, we find it curious that four of these five reports were made by Lee himself, yet none of the thousands of observers who have taken hundreds of organized pelagic trips into North Carolina waters during the past 20 years have seen even one. The only report not made by Lee was of 15 Little Shearwaters (and apparently *no* Audubon's Shearwaters), in August 1987 about 37 miles east of Diamond Shoals Light in the Gulf Stream. This report is certainly incorrect.

Audubon's Shearwater (*Puffinus lherminieri*)

Lee was incorrect when he stated (p. 130-131) that the latest winter record is 22 January and the earliest spring record is 7 April. There are several published records from February and March, thus extending the species' occurrence year-round.

Wilson's Storm-Petrel (*Oceanites oceanicus*)

Lee's statement (p. 131-132) that the species is "seen in shallow water but [is] most common in the 40-800 fathom area" is vague and misleading. We find that Wilson's is more common in shallow water during spring and more common in deep water during summer and fall. Also, Wilson's is a common migrant (not occasional as Lee stated) in the littoral zone during spring. It is regularly seen from shore in substantial numbers, and these counts are published regularly in *The Chat*.

White-faced Storm-Petrel (*Pelagodroma marina*)

Lee's (p. 132) description of this species as "uncommon" is very generous, considering that over the past 15 years there has been, on average, not more than one report per year from North Carolina waters. In fact, it is one of the rarest species occurring in North Carolina waters. Its status is, and has always been, a "very rare late summer and fall visitor."

Lee was also incorrect when he stated that the species was "Not known from the state prior to 1979" (p. 132). Two were seen following Hurricane *Ginger* at Oregon Inlet on 2 October 1971 (Amer. Birds 26:45).

Leach's Storm-Petrel (*Oceanodroma leucorhoa*)

Lee's (p. 133) bar graph is heavily skewed by using mean counts, providing unnatural and inaccurate peaks in the last half of August and in late June. Except for late spring, we have found that the species is missed on pelagic trips more often than not.

White-tailed Tropicbird (*Phaethon lepturus*)

Lee (p. 134) gave a maximum count of three birds, but Patteson reported four birds, on 18 June 1994 (Chat 59:72). Moreover, Lee himself reported four birds off Oregon Inlet on 6 August 1985 (Amer. Birds 40:97).

Red-billed Tropicbird (*Phaethon aethereus*)

We strongly disagree with Lee when he labels this species and White-tailed Tropicbird both as "uncommon visitor." Red-billed is certainly not nearly as common as White-tailed. Before 1994, the NCBRC was aware of only five reports from North Carolina waters, which would give a status of "very rare" or "casual." We are aware of only nine sightings from 1994 through 1995, and those years stand out as exceptionally good for the species in our waters.

Lee's support for this equal abundance hypothesis was largely derived by casting wholesale doubt on the many White-tailed sightings not made by him. While misidentification of tropicbirds is possible (especially of immatures), they are not nearly as difficult to identify as Lee implied. Because tropicbirds apparently have a fondness for investigating boats, observers are routinely afforded prolonged and close views. Moreover, the black upperwing carpal bars of the White-tailed are visible at considerable distance and can even be seen from below. Our data suggest that at least 85% of the tropicbirds seen off North Carolina are White-taileds.

Red-billed Tropicbird is a "rare visitor" from May to September.

Masked Booby (*Sula dactylatra*)

Lee's (p. 135) statement that the species is "usually found in deep Gulf Stream waters" is misleading. There are many records from shallow Gulf Stream waters, including two reports of live birds seen from shore.

Brown Booby (*Sula leucogaster*)

The second-hand report of a Brown Booby for December 1987, cited by Lee, is incorrect. None of the observers, save one, felt the bird was identifiable as anything. It was seen at very great distance, in poor light and in the presence of thousands of Northern Gannets (*Morus bassanus*). The NCBRC placed Brown Booby on the Official List, based on one accepted sight record from 25 April 1983 (NCBRC 1990, p. 54) and one photographic record from 9 July 1994 (NCBRC 1995, p. 86). There are at least four other reports from 1994 and 1995 currently under consideration by the NCBRC.

Magnificent Frigatebird (*Fregata magnificens*)

Lee (p. 137) listed this species as "uncommon and irregular." Yet, on average, there are fewer than two sight reports a year from North Carolina, and most are from the immediate coast. Thus, its status is "rare" or "very rare."

Red Phalarope (*Phalaropus fulicaria*)

We agree with Lee (p. 140) that "From mid-October to the start of the spring migration, Red Phalaropes can be abundant off the coast of North Carolina." Unfortunately, his graph included no records for October or November and showed an obvious, unnatural dip in abundance during February. These discrepancies warrant explanation.

Pomarine (*Stercorarius pomarinus*) and Parasitic (*S. parasiticus*) jaegers

Lee stated that the "validity of some identifications may be questionable because none had supporting details" (p. 141). While on principle we agree that some jaeger identifications should be treated as "species unknown," Lee's statement unrealistically assumes that every sighting should be documented, ignoring the fact that literally scores of these two species are seen each year by multiple, competent observers. We are additionally disturbed that Lee made these criticisms when he has never provided written documentation of any of the jaegers he has seen.

Lee's data further suffer from a sampling bias because he conducted few or no nearshore and onshore surveys. While Pomarine is far more common offshore than Parasitic, the two species occur in similar numbers coastally.

Parasitic Jaeger is an inshore migrant, and a considerable movement of this species occurs along the coastline during the latter half of May and again during October and November.

Long-tailed Jaeger (*Stercorarius longicaudus*)

Lee's description of this species as a "regular and common migrant" (p. 142) is inconsistent with his own data. His bar graph shows peak counts of birds per trip of 0.5 to 0.7, with an offshore peak count of four. Such totals would give the species a "rare" status. Curiously, Lee overlooked higher counts from onshore at Cape Hatteras Point, especially the record of 12 seen on 28 May 1987 (Chat 52:46). We consider its status as "uncommon." We do agree with Lee that Long-tailed is more numerous than the Parasitic well offshore and is probably more common than popularly believed.

Great Skua (*Catharacta skua*)

We agree with Lee that Great Skua is an uncommon winter visitor from shelf waters.

South Polar Skua (*Catharacta maccormicki*)

When Lee (p. 144) asserted that "Verified records are [only] from deep Gulf Stream waters," he ignored the annual (including photographic) records from inshore Gulf Stream waters and from shore at Cape Hatteras Point.

Sabine's Gull (*Xema sabini*)

The "Earliest Fall Record: 15 July 1992" cited by Lee (p. 145) was a bird seen along the immediate coast and more likely represented a non-breeding summer bird rather than a southbound (fall) migrant. This record is certainly atypical, as the majority of fall records are from September or early October.

California Gull (*Larus californicus*)

Although this is not a pelagic species, Lee did include a number of gull and tern species not typically seen at sea. Given the great breadth of scope in Lee's paper, this species should have been included. California Gull is on the Official List based on one photographed on 29 January 1993 (NCBRC 1994, p. 86). Two more records were accepted in 1994 (NCBRC 1995, p. 86). Subsequently, one or two individuals of this species have been seen annually in large, mixed gull flocks, particularly at Cape Point.

Thayer's Gull (*Larus thayeri*)

Lee was wrong to place this species in quotation marks, stating that Thayer's Gull is "now regarded as a race of *L. glaucoides* [Iceland Gull]" (p. 148). The American Ornithologists' Union (1983) considered the Thayer's Gull to be a valid species. At the time of his writing (and to date), the A.O.U. has not changed its opinion (American Ornithologists' Union 1995).

Ivory Gull (*Pagophila eburnea*)

We are very concerned about Lee's inclusion of this species based on his own single observation that he, himself considered an "unconfirmed report" (p. 149). Lee's initial descriptions of the bird to Tove and John Fussell (pers. comm.), on separate occasions, were inconsistent with Ivory Gull, instead sounding very much like an albino Bonaparte's Gull (*Larus philadelphia*) that Tove saw at the same location a few days before Lee's sighting. We are also disturbed that Lee's (1980) published report included a different and seemingly "more accurate" description than the one he gave Fussell and later Tove shortly after the actual sighting. Tove (1989) presented an argument showing specific inaccuracies in Lee's description of the gull. These points were also ignored by Lee in the present paper.

The NCBRC listed this report as an Unaccepted Sighting (NCBRC 1990, p. 56). There are no accepted records for the state.

Arctic Tern (*Sterna paradisaea*)

Lee's statements that "most reports are typically of single birds" (p. 149) and "there are few records of the species" (p. 149) are false. There are numerous reports of the species since 1989. Most of these sightings occurred during the second half of May, including two separate daily counts of 27+ made during late May 1992 (Chat 57:55). Thus, the spring migration period extends to the end of May, if not early June, and not to mid-May, as Lee stated. In fact, the peak seems to be around 20-25 May. Brinkley (1994) provided additional information about the spring migration of this species.

Bridled Tern (*Sterna anaethetus*)

Lee (p. 149-150) listed the species as a "common summer resident." His bar graphs, however, indicate daily average counts in the 3-9 range, which is better considered "uncommon to fairly common." Additionally, the peak offshore counts are much greater than the 45 birds Lee (p. 150) reported. 65 were counted on 1 September 1990 (Chat 54:98), and Brinkley, Robert Ake, and others observed 85 on 20 August 1978. Finally, over 120 were observed from shore following Hurricane *David* on 5 and 6 September 1979 in the Wrightsville Beach area (Fussell and Allen-Grimes 1980).

Sooty Tern (*Sterna fuscata*)

Lee's description of this species as an "irregular visitor" (p. 150) ignored the fact that it occurs annually from late May through late September, including annual breeding attempts at Cape Hatteras Point and other coastal sites in the 1980's and 1990's. It is rare to uncommon offshore during May and June, becoming more common as the summer progresses. Peak counts are associated with hurricanes and other major storms. The status of this species may be changing as the number of sightings has increased since the late 1980s.

Lee's (p. 151) bar graph is also misleading. The bizarre late April peak seems to be caused by a single report of 44 birds. This sighting, averaged with the remaining dozen trips on which no individuals were seen, gave an unrealistic late April mean of 3.5-4.0 birds per trip.

Dovekie (*Alle alle*)

Lee (p. 154) overlooked several recent records, most notably an impressive 257 individuals seen off Currituck Banks on 13 February 1994 (Chat 59:35; Nat. Aud. Soc. Field Notes 48:198).

Razorbill (*Alca torda*)

Lee was completely wrong when he stated, "With the exception of one sighting 12 miles off Pea Island, all reports of Razorbills in North Carolina have been of birds seen from shore" (p. 154), and "All North Carolina records are of single birds" (p. 154). There are many sightings of multiple birds in the literature. Lee further ignored several reports of this species from pelagic trips, particularly during early 1994, when a tremendous influx of Razorbills occurred in North Carolina waters (see Chat 59:35; Nat. Aud. Soc. Field Notes 48:198). The peak count for the state is now 1184, tallied from shore on 14 February 1994, and the peak offshore count is 516, made on 15 February 1994. This does not include the "between two and three thousand birds" noted offshore by local fishermen on 13 February 1994 east of Hatteras Village to Avon (*fide* Brinkley, Patteson, and Tove).

Black Guillemot (*Cepphus grylle*)

Lee overlooked a record of one Black Guillemot seen at Wrightsville Beach from 24 April to about 3 May 1993 (Am. Birds 47:405). This bird was seen by numerous observers, and a written description was accepted by the

NCBRC, which added the species to the Provisional List (NCBRC 1994, p. 86).

Discussion

Several of Lee's remarks in the Discussion section also merit comments. Although he acknowledged (p. 155) the contributions of at least eight people to the pelagic data from waters off southeastern states other than North Carolina, he omitted due acknowledgment to several individuals. Most glaring was his failure to recognize the pioneering contributions of Paul DuMont and Robert Ake, who first began organized pelagic trips into North Carolina waters in 1970 and continued to run annual trips through the early 1990's. In his section "Recent Studies and Studies in Progress," he cited only himself and ignored the doctoral research of Todd Hass (Distribution of pelagic birds in relation to water temperature, depth, and food availability), a project conducted in partial cooperation with Lee and the N.C. Museum of Natural Sciences. He also ignored the data generated by the hundreds of trips organized and conducted by ourselves and others over the past 20+ years.

Lee's comments on "local foraging zones" (p. 158-159) were confused. His category "Inshore Waters (15-100 fathoms)" mostly overlapped his category "Shelf-edge (50-100 fathoms)" without explanation. There was no mention of the waters from 100 to 300 fathoms. Additionally, his statement that "No birds typically inhabit" the Inshore Waters zone was unfounded. We regularly find moderate to occasionally large numbers of Cory's Shearwaters, Wilson's Storm-Petrels, and some other species in this zone.

In conclusion, given the frequency and seriousness of errors and omissions in Lee's paper, we consider it an unreliable accounting of the pelagic birds of North Carolina. Additionally, we question the need for this paper at all, as it rehashed his pre-1989 data that have been published elsewhere (Lee 1986a), often in summary form. The lack of new data, inadequate literature review, poor statistical manipulations, and broad inaccuracies should have rendered Lee's paper unworthy for publication.

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A Response to Tove *et al.* (1998), Marine Birds off the Coast of North Carolina: A Critique

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In my paper reviewing the marine birds off the North Carolina Coast (Chat 59: 113-171), I summarized what I had learned between 1975 and 1989 concerning the temporal and ecological distributions of local seabirds. The majority of the information presented was from personal research, but I did place this into the context of what had been reported by others, and I provided an overview of the marine avifauna of the state. The manuscript was originally written at the request of the U.S. Fish and Wildlife Service. Its personnel reviewed the entire paper, it was then sent out for peer review, and the USFWS encouraged publication and distribution of the paper. Prior to publication in *The Chat* comments of all reviewers were addressed. In this issue of *The Chat*, Tove *et al.* (1998; 62:49) have critiqued this paper. I appreciate the time and effort they have put into their review. They provide a considerable amount of additional information on the state's seabirds, including important observations made subsequent to my publication. There are, however, a number of points I need to address, and what follows is my response to their critique.

Tove *et al.* (1998) find considerable fault with my 1995 publication, specifically identifying six broad areas of concern. I will first address these broader issues and then review the specific points they present.

1) An inadequate job reviewing the literature. I did an extensive literature review as indicated by 180 references listed in the "Literature Cited" section of my 1995 paper, but I did not intend this to be a complete bibliography of North Carolina seabird literature. The "Literature Cited" section of the Tove *et al.* critique includes four references not available when I wrote the manuscript, and I see only one short note (Ball 1948) pertinent to North Carolina seabirds which I did not include. I am unaware of any "important papers" which were omitted. Several reports (*e.g.*, Am. Birds and 'Briefs' in *The Chat*) that should have been included were inadvertently overlooked. For several of the recent citations that I did include, I unintentionally failed to incorporate all of the information into the text of my accounts. Some of the information presented in the critique has never appeared in print, and I was not aware of it. By my count, from what is addressed in the critique, it appears

that in compiling literally thousands of bird reports, 17 mildly-interesting to important single species/date observations were not included.

2) Disregard of decisions of the Carolina Bird Club's North Carolina Bird Records Committee (NCBRC). There appears to be a misunderstanding about the purpose and scope of my paper. The paper was not written as a submission to the NCBRC as information for the committee to review and accept or reject. The critique says that I entirely disregarded their work. I have simply approached the issues of reports and records from a different perspective. I provided information on the lack of documentation on the species level in three different sections of the text as well as under each species where this is an issue. On page 116 I discuss the seven seabird species that have not been confirmed with specimens or photographs for North Carolina and also included what is known about the occurrence of these species elsewhere in the region. I deliberately did not restate the decisions of the NCBRC, and for all of these species I made it clear that these birds were also not on the N.C. State Museum's state bird list. In nearly all respects my 1995 paper independently supports the findings of the CBC records committee. Collectively these unconfirmed reports differ in only a few minor points from the decisions of the CBC records committee, and mostly these differences are in terminology. Apparently the issue is that the authors of the critique think these birds should not have been mentioned at all. I totally disagree with this philosophy. Rejection by a committee of bird sight records does not automatically indicate the report in question is erroneous. A policy forbidding publication of unaccepted sightings would mean that potentially valuable information would forever be lost (*e.g.*, see my discussion on this under "Bermuda Petrel" in this response). It was entirely outside the scope of my paper to accept, reject or address the decisions of the records committee. Note that I did not refer to other states' records committees decisions for other southeastern states when citing reports from outside North Carolina. 'Official" information on the conservation status which was developed by another North Carolina committee was also not included. As with determinations of the CBC records committee, the conservation information was not included because it too had little to do with the scope of the paper.

The role of the CBC committee is to review reports of bird sightings, not to filter them from publication. In fact, as an aside, I find it intriguing that the CBC records committee can take reports, which by their own standards are judged inadequate for species identification, and then use this same information to identify a bird which they have not personally seen. This is done at least three times in their critique.

In several places throughout Tove *et al.* (1998) the authors criticize that I did not provide detailed identification accounts of the birds in question. No descriptions of any birds were included in this manuscript, and descriptions were never intended as part of the format. In all cases supporting information and the response of the committee has already been published in *The Chat* or elsewhere.

3) Accounts and conclusions inconsistent with theirs. Actually my paper is, in part, an overview of one of only a few North Atlantic sea bird studies where the methodologies can be reproduced by other researchers. Because of the dynamic nature of the region, it is doubtful that the data could be duplicated. The point of my long range and ongoing study is to provide a baseline with methods that can be reproduced. (Also see my comments in this response under "Black-capped Petrel.") I have published reports of individual species or unusual seasonal occurrences of species which have not been substantiated by the field efforts of others in North Carolina as have others. Bird literature, because of the acceptance of reports not supported with specimens, and the nature of birds themselves, does often contain unsubstantiated reports. In this case the authors are referring specifically to two or three species, and I fail to see why this needed to be repeated in the critique since the CBC committee has already detailed their concerns regarding these reports.

4) Standards. My points were misrepresented. I was not "complaining" as they suggest, but stating the fact that without published details it is difficult to know if a particular identification was correct. My specific statements are clearly aimed at reports of tropicbirds, skuas and jaegers prior to the late 1970's. At that time it was not known how many species of these seabirds actually lived in the Western North Atlantic. Long-tailed Jaegers were considered extremely rare, and only one species of tropicbird and and one species of skua were named in earlier editions of Eastern North American field guides. In the cases mentioned, my concerns were in the documentation of early and late dates of occurrence. For jaegers, where identifications remain to some degree problematic, I deliberately chose to be conservative and largely relied on specimen records. For tropicbirds and skuas I used only reports made after bird watchers were aware of more than a single species occurring in our area.

5) Inconsistent use of terms. Contrary to the critique's criticism, as best I can determine my terms of abundance are consistent within orders of magnitude. I had no intention to fine-tune beyond this point. Relative abundance for all species was presented on a month-by-month basis in several

of my previous publications (Lee 1986a, 1991, Lee and Socci 1989; using bar graphs and pie charts). These graphics were updated for this publication but at the last minute were omitted by the editor because of space limitations. Had they been included my terminology would not be a problem. (Actually a fair amount of the text and a number of the figures were omitted, and all figure captions were shortened because of space constraints; all editorial changes were done with my knowledge.) I believe that the variety of terms used allowed for wording that best described the status of a particular species (*i.e.*, my use of "irregular visitor" for Sooty Tern relays more information than the suggested "uncommon to fairly common"). Furthermore, the entire text when taken in context gives a good indication of relative abundance. I find it ironic that the Tove *et al.* critique has used my graphics to determine, or justify, terms of relative abundance believed to be more appropriate. The authors of the critique apparently didn't notice that the scales of these graphics were different from one species to another. The scales alone give a rather good indication of relative abundance. Many of the statements in the critique regarding relative abundance terminology are raw nonsense. Under Greater Shearwater I state that this bird is "common to abundant". The critique's authors suggest that "fairly common, to occasionally common" is more appropriate. At times counts of many hundreds have been recorded from single trips, and there are trips where over 1,000 individuals have been tallied. I consider this to be "abundant" by anyone's standards.

Regarding terminology, I consider a "sighting" to be a report (uncapitalized) and "record" as an identification confirmed with a specimen or photograph (in reviewing my paper I see several instances where I mixed the terms). This use is standard in most ornithological literature and differs from the definitions imposed by the critique. Appendix A of my paper describes the criteria for species inclusion as records and reports, and I fail to see even the perception of a problem here.

6) Misleading statistical methods. There is no statistical analysis in this paper: it is descriptive and contains only bar graphs. These graphs were for species for which there were enough sightings to show patterns from my offshore data and, *when combined with the text*, they illustrate patterns of occurrence and the variation from trip-to-trip, month-to- month, and year-to-year (see Northern Fulmar). The fact that specific portions of a given month are biased by small sample sizes is to be expected and is easily understood. In fact illustrating the potential for fluctuation is one of the strengths of my bar graphs, and collectively they show the dynamic nature of the local marine environment. This is not "stastistical misrepresentation." It is simply how my

data appears. When specific graphs are compared to the information provided in Table 1, it is difficult to imagine that anyone would be unable to interpret them. Unfortunately sample size and other information was cut from the figure captions in order to save space, but the loss of this information does not render the figures useless.

Items not mentioned by Tove *et al.* (1998) are the context of my statements and the timing of my publication. Many of the concerns addressed are taken out of the context of either the paper as a whole or the context of individual species accounts. On pages 117 and 118 I clearly spell out that the manuscript was written prior to mid-1989 and that no reports published after September 1995 are included. I pointed out that in my attempt to bring the text up-to-date unfortunately some relevant information would likely be overlooked. It is true some information was unintentionally omitted. More to the point, several of the same authors of Tove *et al.* (1998) formally reviewed a 1987-8 draft of this publication. If they were concerned about omissions, 1988 would have been the appropriate and constructive time to bring these problems to light.

For the few readers actually concerned with discrepancies, perceived discrepancies, differences of opinion, and my "major" errors, I encourage them to read the above comments followed by a careful in-context reading of the portions of my 1995 paper that are in question. This will clarify most points addressed by Tove *et al.* (1998).

I will now briefly discuss a few issues which are not generally covered in the above statements.

The comments which follow are based on statements from the critique. For the clarifications I make here it may be necessary to first read the corresponding statement in the critique. I have not addressed these statements point-by-point in that most of the issues have been covered above. I have chosen this format and not repeated literature citations to conserve space.

Yellow-nosed Albatross

Actually their statement that no other reports have been received is false. Another report of a Yellow-nosed Albatross is now available for North Carolina. I talked to one of the authors of the Tove critique several months before the critique manuscript was revised and resubmitted to *The Chat* and learned that he had studied this additional report. This is one of a number of instances where the authors have misrepresented facts in an attempt to make their points.

Black-browed Albatross

This report has not been accepted by the museum's state records committee, but it has been accepted by the CBC records committee.

Northern Fulmar

The statement “often common" and the actual mean number of birds per trip is exactly what I intended to show. This is not a discrepancy.

Cape Petrel

The critique's wording concerning my use of literature is deliberately deceptive, and they misrepresent what I wrote. I cite two early Twentieth Century publications that give important additional information on the specimen collected in Maine. I did not ignore the A.O.U.'s Checklist Committee's opinion as the critique says. The A.O.U.'s opinion is clearly stated on line four under "status."

Black-capped Petrel

I did inadvertently overlook three reports for high counts of these birds. The words "documentation," “verification," and similar terms used elsewhere in my 1995 paper refer to a detailed published account, a specimen, or a photograph. Thus, while Black-capped Petrel sightings were not documented with a specimen, or in this case even written up for publication prior to my surveys, they had been reported before 1976. (I was personally involved in several of these pre-1976 sightings.) Identical interpretive problems were presented for the White-faced Storm-petrel. Differences in the total numbers of Black-capped Petrels observed in my studies and from the critique’s authors during their bird watching trips are expected. In my surveys I attempted to survey as many offshore zones as possible. I was not just interested in where birds were but also where they were not. On commercial bird watching trips, trip leaders obviously try to give participants the maximum amount of exposure time to rare species, thereby getting higher counts of select species. In order for me to determine relative seasonal densities it was necessary to survey wide cross-sections of various pelagic habitats. Tove *et al.* have failed to understand this. On page 116 I discussed problems with attempts to directly compare different data sets.

Bermuda Petrel

Here Tove *et al.* (1998) refer to information that was available after I wrote the manuscript, and in this case, well after publication of my paper. It is informative to note, however, that the authors of the Wingate *et al.* (1998) paper included my earlier reports in their discussion of the bird's local occurrence. If all reports not acceptable to the CBC records committee were censored from the literature, as they indicate should be the case, then these particular ones should not be available for use. As an aside, the seemingly regular occurrence of the Bermuda Petrel on North Carolina's Outer Continental Shelf, because it is a Federally-listed endangered species, will play a key role in developing conservation priorities as they relate to offshore oil exploration in North Carolina. From a conservation perspective, collectively all these records and reports are important, and it is vital that they were published.

Soft-plumaged Petrel

Contrary to the Tove *et al.* (1998) statement, my reference to this bird as the "*mollis*" complex does not in itself restrict discussion to the southern hemisphere species. For anyone vaguely familiar with problematic taxonomic groups, this notation is straightforward. My "refusal to speculate" on the identification of a cryptic species is not an "error," nor was it "misleading." It was deliberate and conservative, and if one reads my paper the reasons for my approach are clear. For the record, contrary to the critique, Soft-plumaged Petrels have been reported and technically documented for North Carolina (photo and statement in Birding World 5, Haney *et al.* 1993), but these identifications are not necessarily correct.

The critique deliberately overlooks the fact that references I included support my statement that these birds do not lend themselves to at-sea identifications. These references describe birds that were actually in the hands of European experts that were familiar with the species complex, yet they were unable to determine what they were. These references were published in the peer-reviewed academic literature, not in bird-watching magazines. In my opinion the former have higher scientific credibility. In fact, in the original elevation of the North Atlantic populations to full species, Bourne (1983) makes the point that his classification was not based on plumage or appearance.

My statement on collecting (pg. 124-125) will be understood by anyone who reads it. I find the concern of the critique perplexing in that one of the authors of Tove *et al.* wanted to collect specimens of these rare petrels, and his letter-writing to overseas authorities nearly started an international incident (USNM file 1997 letter to U.S. State Department from the American Ambassador in Lisbon concerning the collecting of Fea's Petrel in US waters, and a letter from W.R.P. Bourne in 1993 discussing how inappropriate it would be to collect these birds in US waters.)

Herald Petrel

I was unaware of published multiple reports which became available after I re-edited the manuscript. Perhaps the statement should be corrected to, "Compared to most other tropical species, these birds are usually seen alone." (The way the reports were published in American Birds and *The Chat*'s Briefs for the Files, however, and from what is provided in the critique, it is not possible to tell if sightings are of single individuals seen on the same date or of two or more birds seen together. Reading several of the regional reports listed in the critique sheds no light on this question.) It is my experience that this species does not flock, and there is nothing in the literature to suggest that they do.

Greater Shearwater

My seasonal distribution figures are repeatedly being misrepresented. I am not showing presence or peaks. I am showing averages.

Bulwer's Petrel

My 1979 observation was included for completeness in that it had been published by Haney and Wainright (1985) and Hass (in press). Whether or not this report had been written-up with details or reviewed by a records committee is not relevant. Contrary to Tove *et al.*, it had already been "introduced" by these two papers.

Sooty Shearwaters

Several important reports were unintentionally overlooked.

Little Shearwater

My saying the species has not been confirmed (specimen) and listing sight reports is not contradictory. Furthermore, I am not, as the critique implies, treating individual records as "factual" or "incorrect". As with other species all published reports were simply compiled.

Audubon's Shearwater

Tove *et al.* are correct. I even have specimens from this period, and I am not clear as to how they were missed. The seasonal distributions were correctly stated in the text, but not under spring and winter date records.

Wilson's Storm-petrel

The species is "most common in the 40-800 fathom area" (this is actually a rather narrow zone because of the contours of the Outer Continental Shelf), but readers wanting more specific information on zones of occurrence should refer to Table 2 (pg. 159).

White-tailed Tropicbird

Tove *et al.* are correct. My maximum count was in error as published.

Red-billed Tropicbird

I fail to see how stating that both species are "uncommon visitors" equates to an "equal abundance hypothesis." I did not intend to imply that this tropicbird is as equally common as the White-tailed Tropicbird, and I certainly did not say this. I have published two papers and have several others in manuscript concerning the status of tropicbirds in the Western North Atlantic, all of which say otherwise. I think I clearly made the point that the reports of White-tailed Tropicbirds in question were the ones made prior to the discovery of the Red-billed Tropicbird off eastern North America.

Masked Booby

This species is largely found over Gulf Stream waters (which incidentally in our region flows over areas where the ocean is deep) where it is associated with drifting *Sargassum* mats. This has been confirmed by others as well (*i.e.*, Haney 1986).

Brown Booby

The December report should not have been included.

Red Phalarope

If the scale on the Red Phalarope graph is examined (as well as the scales on many of the other figures criticized for not providing adequate information), the reasons for no phalaropes being shown for October or November can be understood. The graphs do not show "records," as the critique keeps trying to imply. They show *averages*. This is explained in the graphics, and additional information is available in the text.

Pomarine and Parasitic Jaegers

If one has read my previous papers, I have provided documentation for these jaegers. In fact in 90% of the cases the ones I refer to are collected specimens. I did not say I expect all jaeger sightings to be accompanied by supporting descriptions. I did choose, however, not to use any of these reports to define seasonal occurrence because there was no way to retroactively evaluate specific reports.

California Gull

See my account of Black Guillemot.

Thayer's Gull

The papers I cited on page 148 of Lee 1995 address the taxonomy of this gull. The CBC records committee is clearly aware of the taxonomic problems concerning Thayer's Gull. The CBC committee even notes, "The Committee is not addressing the validity of the species" (Chat 54:56).

Ivory Gull

I fail to understand the concern in that it was spelled-out in my paper that the bird in question is unconfirmed. The points of Tove's (1989) paper were not addressed in my paper because as stated above my 1995 paper does not discuss identification issues. The criteria for inclusion of this report in my 1995 paper is no different than that of any other published one referred to in my paper. The information I provided to Tove and Fussell was consistent with what I published. It is interesting to learn 18 years later via this critique that an albino Bonaparte's Gull was seen a few days before. If one reads my original description of the bird in question, however, it is clear from size alone that it was not a Bonaparte's Gull.

Arctic, Bridled Terns and Dovekie

Several key reports were unintentionally omitted from each of these accounts.

Razorbill

The authors of the critique provide a wealth of information that I had missed.

Black Guillemot

The inclusion of California Gull and Black Guillemot would have been useful additions to my 1995 paper, but these reports were never formally published (gull) or they were reported without any accompanying details (guillemot). I chose not to include them because they represent birds new to the state, and as interesting additions to the overall knowledge of the fauna of the region, they deserve attention. It is well-established protocol, however, that persons making the first observations of a species new to a state are the ones expected to present them in publication.

Discussion

Contrary to the statements concerning acknowledgments by Tove *et al.* (1998), my acknowledgments are on page 161. The information on page 155 refers to other seabird studies conducted in other southeastern states. It is not an acknowledgment. In my acknowledgments section (page 161), I simply thank the people who directly helped with this particular manuscript. But, for the record, Paul DuMont and Robert Ake were fully acknowledged in my earlier publications. The doctoral research of Todd Hass (which the museum did help support) was not focused at the time I wrote the manuscript, and I did not include, except where cited, any of his results. Hass's data were not analyzed until long after my 1995 publication appeared, and to date they have not been published. Contrary to the statements of Tove *et al.* (1998), in my section on "Recent Studies and Studies in Progress," I do not cite only my own works, although surely there were a number of other on-going studies I was not aware of.

Inshore waters do overlap with shelf-edge waters as a result of undulations of the bottom contours, storm climate and currents along the eastern limits of North Carolina's Outer Continental Shelf. These are established defined terms that are not unique to my publication. The fact that I did not list any birds between 100 and 300 fathoms is simply an artifact of my having no species that characterize this portion of the ocean which are not regularly shared by those of adjacent areas. This is obvious from reading the text.

I should have said "few" birds inhabit inshore waters, but this is internally clarified in my publication for any readers taking the time to refer to Table 2 (pg. 159), and this information is consistent with what the critique proposes.

Finally, I must comment on the distracting overall message of this critique and its last paragraph. According to Tove *et al.*, authors of manuscripts must have the approval of the people who wrote this critique and the members of the NCBR (there is a considerable overlap of personnel) concerning which birds they write about and which ones they are allowed to leave out. Authors do not have authority to choose methods for presenting their own data, or if we do, this data cannot be at odds with the unpublished, preconceived opinions of the critiques' authors. We are told who to acknowledge. Granting agencies and other contributors do not have influence in the final products they sponsor, and editors and reviewers no longer have the final say on what is worthy for publication in *The Chat.*

Terms such as “seriousness of error," “most glaring," “serious problems," "broad inaccuracies," and “inadequacy of literature review," are all matters of perception, and to me this wording seems extreme. Yes, while it is clear that my paper would have benefitted by my attention to a number of the concerns Tove *et al.* (1998) present, it is not their prerogative to judge this paper by standards I never intended. Contrary to statements in the critique, published reviews of existing information are not precedent-setting in ornithological literature. Nonetheless, the statement that this paper lacks new data is untrue as can be ascertained by even casual reading. The 1986 paper they cite was only four pages in length. The paper they critique was 58 pages.

I found it difficult to respond to this critique in that it is such a odd mixing of both constructive and destructive criticism. I believe much of the text of the critique is inappropriate. Philosophical differences, misrepresentation, distortions, overstatements of minor details, and instances of unnecessarily venomous verbiage combine to distract from their otherwise useful contribution.

CBC Rare Bird Alert
(704) 332-BIRD

Spring 1997 North American Migration Count in South Carolina

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The 1997 Spring North American Migration Count in South Carolina was held on the second Saturday in May (10 May 1997). Counters found a grand total of 220 species and about 47,703 individual birds in South Carolina. Of these some 34 species were "exclusives," that is, found in only one county. The distribution of exclusives was as follows: 9 exclusives -- Charleston County, 7 exclusives -- Jasper County, 4 exclusives -- Spartanburg County, 3 exclusives -- Georgetown County, 2 exclusives -- Beaufort County, Cherokee County, Greenville County, Horry County, Lexington County, and 1 exclusive -- Oconee County.

Participating Counties

Counts were held in eighteen of the forty six counties of the state (the same number of counties as in 1996). Counties holding counts in 1997 (by geographic region, with county seat) were:

Coastal and Outer Coastal Plain: Horry (Conway), Georgetown (Georgetown), Charleston (Charleston), Beaufort (Beaufort), Jasper (Ridgeland).
Inner Coastal Plain:Barnwell (Barnwell), Hampton (Hampton), Williamsburg (Kingstree).
Piedmont and Inner Coastal Plain (*i.e.* Fall Line area): Aiken (Aiken), Lexington (Lexington), Richland (Columbia).
Piedmont: Saluda (Saluda), Spartanburg (Spartanburg), Cherokee (Gaffney), Chester (Chester), Fairfield (Winnsboro).
Mountains and Piedmont: Greenville (Greenville), Oconee (Walhalla).

Rarities, Species of Note, and High Counts

Participants in Aiken County turned up a whopping nine species of shorebirds, including 5 White-rumped Sandpipers, always a good find inland in South Carolina. One Common Ground-Dove was also reported, following a report of two for the spring count in 1996. There is apparently a small population of this pleasing little dove in the county.

Teddy and Ned Shuler submitted a typical single party count from the Savannah River Site in Barnwell County. They found good numbers of expected species there.

In Beaufort County Judy and George Halleron conducted an interesting count, limiting themselves to the coastal portion of the county, which explains the extremely low number of migrant passerines observed. Good finds included four Marbled Godwits (a tough species to find in mid-May) and a good count of eight Common Ground-Doves, reflecting a good local population of this species on Harbor Island. Exclusive species for Beaufort County were Marbled Godwit and Red Knot.

As usual Charleston County was the scene of a well organized effort involving dozens of participants in all parts of the county. As a result Perry Nugent and his troops came up with a whopping 176 species -- easily the best count in the state. Rarities and high numbers include 145 Wood Storks, 10 Hooded Mergansers, 17 Swallow-tailed Kites, 18 Mississippi Kites, 271 Whimbrels, a Wilson's Phalarope, 6 Black-billed Cuckoos, 5 Barn Owls, a Willow Flycatcher, a late Eastern Phoebe, and an amazing 3 White-crowned Sparrows. Charleston County also had the most (9) exclusive species: Common Loon, Virginia Rail, Piping Plover, Wilson's Phalarope, Gull-billed Tern, Black Tern, Black-billed Cuckoo, Seaside Sparrow, and White-crowned Sparrow.

Good species found in Cherokee County included a well-documented Warbling Vireo (very unusual anywhere in South Carolina) and 2 Dickcissels. These were also the two exclusive species for Cherokee County. Observers noted that the high number of Cedar Waxwings reported from Cowpens National Battlefield in previous years may well be a thing of the past. National Park Service policy is now to preserve the Battlefield in a state more like what was there during the Battle of Cowpens (in the American Revolution), so most of the mulberry trees on the park have been removed. This is reflected in the relatively low number (16) of Cedar Waxwings counted this year.

Counters in Chester County had a typical spring count this year. The Barn Owl was at a known stakeout. Of most interest was the conservative count of 2800 Cliff Swallows. In Chester County this species has begun breeding under highway bridges along I-77 and US 21 well away from water, as well as under bridges over the Catawba River. If this trend expands we may well see the time when the Cliff Swallow is by far the most common breeding swallow in the Carolinas!

In Fairfield County the single party of counters found a nice total of 105 species, without finding anything rare. The high total is due to familiarity with the county (so that no easy species were missed) and is probably a reflection of the excellent birding in the South Carolina Piedmont in mid-May. A singing Song Sparrow near the airport was perhaps a bit late, but the possibility of local breeding at what would be the edge of this species breeding range has not been eliminated.

The main area counted in Georgetown County is Huntington Beach State Park, so we expect good species to be reported on this count. This year the most unusual was a Lesser Black-backed Gull, which was a bit late. Counters also reported 65 Blue-gray Gnatcatchers, a reflection of the amount of time that was spent searching the scrub areas of the county, since most, if not all, of those gnatcatchers were on territory. There were three exclusive species in Georgetown County: Lesser Scaup, Long-billed Dowitcher, and Lesser Black-backed Gull.

The Greenville County count did not report anything rare but did contribute two exclusives to the overall state list: a Peregrine Falcon (a local breeder) and 2 Common Ravens

A good one-party count in Hampton County found no real rarities, nor any exclusives, but did turn in a solid Low Country list, including such goodies as Anhinga, White Ibis, Wood Stork, Swallow-tailed Kite, Purple Gallinule, Common Ground-Dove, Red-cockaded Woodpecker, and Painted Bunting.

Counters in Horry County found two exclusives -- 2 somewhat late Bonaparte's Gulls and the rarely seen (or at least rarely identified) Least Flycatcher.

By far the best birds found in Jasper County were the 2 Sandhill Cranes found at Savannah National Wildlife Refuge. If the water levels at the Savannah spoil area are favorable you can depend on good numbers of shorebirds on the Jasper County count. This year's count was typical, but a whopping 126 Stilt Sandpipers are especially notable. Jasper County observers found 7 exclusive species: American Black Duck (a local breeder), Northern Pintail, Northern Shoveler, Ruddy Duck, Northern Harrier, Sandhill Crane, and American Avocet.

This year counters in Lexington County covered, among other places, the migrant trap woods along the lower Saluda River. As a result Lexington County came in with couple of exclusive species -- a Wilson's Warbler (rarely found anytime in South Carolina) and a Canada Warbler. In all Lexington County observers recorded 18 species of warbler, not bad for so late in the warbler migration.

As you might expect, Oconee County, with its fine Blue Ridge Mountain and upper Piedmont areas, is one of the better areas to find migrant warblers in South Carolina, especially late in the season. This was indeed the case this spring, with observers reporting 23 species of warbler, including one exclusive: Cerulean Warbler.

Observers in Richland County turned in a typical count, but with no rarities and no exclusives. Better coverage should result in higher species totals, more like those of neighboring Fairfield County.

A fine one-party count was turned in from Saluda County, with no real rarities found and no exclusives. A remarkable total of 10 Scarlet Tanagers was reported. It is unclear if these were all migrants or if some were breeding birds, found on the southern edge of the range of this species.

Spartanburg County had a very well organized count this year, and as a result found a number of unusual species, including a Baird's Sandpiper, an unexpected Barn Owl, two very late Yellow-bellied Sapsuckers, a Willow Flycatcher, a seldom-reported Lawrence's Warbler, and a very late Vesper Sparrow. Four of these species were exclusives: Baird's Sandpiper, Yellow-bellied Sapsucker, Willow Flycatcher, and Lawrence's Warbler (this hybrid is counted as an exclusive, since neither Blue-winged Warbler nor Golden-winged Warbler was reported by any South Carolina count this year).

Observers in Williamsburg County turned in a typical, one-party count, with no rarities and no exclusives. The potential for rarities exists in this county, especially at the Hemingway sewage lagoons, but there was nothing unusual found there this year.

County Records

Aiken County, SC (Piedmont and Inner Coastal Plain). 6:15 AM to 7:00 PM. Temp. 51° to 70° F. Wind N to NE, 10 to 15 mph. AM partly cloudy; PM partly cloudy. Regular observers: 11 in field in 4 parties. Total regular party-hours: 29.5; total regular party-miles: 119.5; 18.5 hours and 9 miles on foot; 11 hours and 110.5 miles by car. Owling observers: 1 in 1 party. Owling party-hours: 0.25; owling party-miles: 0. Totals: 29.75 party-hours; 119.5 party-miles; 11 participants.

Double-crested Cormorant 5, Anhinga 10, Great Blue Heron 6, Great Egret 7, Cattle Egret 15, Green Heron 2, Canada Goose 26, Wood Duck 23, Mallard 4, Black Vulture 25, Turkey Vulture 20, Osprey 2, Mississippi Kite 15, Bald Eagle 2, Red-shouldered Hawk 10, Red-tailed Hawk 4, Buteo sp. 2, Wild Turkey 4, Northern Bobwhite 18, Semipalmated Plover 1, Killdeer 11, Greater Yellowlegs 19, Solitary Sandpiper 4, Spotted Sandpiper 19, Semipalmated Sandpiper 3, Western Sandpiper 4, Least Sandpiper 64, White-rumped Sandpiper 5, peep sp. 1, Rock Dove 19, Mourning Dove 159, Common Ground-Dove 1, Yellow-billed Cuckoo 11, Barred Owl 1, Chuck-will's-widow 1, Chimney Swift 119, Ruby-throated Hummingbird 6, Belted Kingfisher 3, Red-headed Woodpecker 10, Red-bellied Woodpecker 34, Downy Woodpecker 6, Hairy Woodpecker 1, Northern (Yellow-shafted) Flicker 1, Pileated Woodpecker 15, Eastern Wood-Pewee 16, Acadian Flycatcher 13, Great Crested Flycatcher 41, Eastern Kingbird 47, Purple Martin 5, Tree Swallow 1, Northern Rough-winged Swallow 13, Barn Swallow 14, Blue Jay 41, American Crow 115, Fish Crow 37, crow sp. 3, Carolina Chickadee 74, Tufted Titmouse 66, White-breasted Nuthatch 17, Brown-headed Nuthatch 16, Carolina Wren 33, Blue-gray Gnatcatcher 18, Eastern Bluebird 34, Veery 1, Wood Thrush 1, American Robin 11, Gray Catbird 5, Northern Mockingbird 53, Brown Thrasher 6, Cedar Waxwing 7, Loggerhead Shrike 14, European Starling 96, White-eyed Vireo 37, Yellow-throated Vireo 2, Red-eyed Vireo 29, Northern Parula 39, Yellow-rumped (Myrtle) Warbler 4, Yellow-throated Warbler 10, Pine Warbler 30, Blackpoll Warbler 1, Black-and-white Warbler 1, American Redstart 3, Prothonotary Warbler 21, Northern Waterthrush 5, Kentucky Warbler 3, Common Yellowthroat 11, Hooded Warbler 1, Yellow-breasted Chat 3, Summer Tanager 27, Scarlet Tanager 1, Northern Cardinal 117, Rose-breasted Grosbeak 2, Blue Grosbeak 10, Indigo Bunting 58, Painted Bunting 1, Eastern Towhee 43, Bachman's Sparrow 1, Chipping Sparrow 11, Field Sparrow 2, Bobolink 40, Red-winged Blackbird 51, Eastern Meadowlark 11, Common Grackle 105, Brown-headed Cowbird 19, Orchard Oriole 10, Baltimore Oriole 1, House Finch 40, American Goldfinch 4, House Sparrow 20.

Total: 106 species; 2290 individuals.

Coordinator: Anne Waters, 1621 Apple Valley Drive, Augusta, GA 30906. Participants: Chuck Braun, Ernie Clark, LaVon Dunker, Carol Eldridge, Sandra Johnson, Paul Koehler, Mark Komoroski, Richard Lux, Anne Waters, Vernon Waters, Calvin Zippler.

Barnwell County, SC (Inner Coastal Plain). 7:00 AM to 4:00 PM. Regular observers: 2 in field in 1 party. Total regular party-hours: 9; total regular party-miles: 41; 4 hours and 3 miles on foot; 5 hours and 38 miles by car. Totals: 9 party-hours; 38 party miles; 2 participants.

Pied-billed Grebe 2, Double-crested Cormorant 10, Anhinga 5, Great Blue Heron 4, Great Egret 4, Little Blue Heron 3, Cattle Egret 11, Green Heron 4, Canada Goose 6, Wood Duck 18, Mallard 7, Black Vulture 14, Turkey Vulture

12, Osprey 2, Bald Eagle 1, Sharp-shinned Hawk 1, Cooper's Hawk 1, Red-shouldered Hawk 3, Red-tailed Hawk 4, Wild Turkey 37, Northern Bobwhite 2, American Coot 6, Spotted Sandpiper 15, Common Snipe 3, Mourning Dove 33, Yellow-billed Cuckoo 1, Chimney Swift 14, Ruby-throated Hummingbird 2, Belted Kingfisher 3, Red-headed Woodpecker 9, Red-bellied Woodpecker 7, Downy Woodpecker 2, Hairy Woodpecker 1, Northern (Yellow-shafted) Flicker 5, Pileated Woodpecker 4, Eastern Wood-Pewee 1, Acadian Flycatcher 2, Great Crested Flycatcher 13, Eastern Kingbird 12, Horned Lark 3, Northern Rough-winged Swallow 11, Barn Swallow 12, Blue Jay 15, American Crow 11, Fish Crow 4, Tufted Titmouse 16, Brown-headed Nuthatch 7, Carolina Wren 8, Blue-gray Gnatcatcher 12, Eastern Bluebird 16, Wood Thrush 2, American Robin 3, Gray Catbird 2, Northern Mockingbird 42, Brown Thrasher 3, Loggerhead Shrike 1, European Starling 9, White-eyed Vireo 4, Blue-headed Vireo 1, Yellow-throated Vireo 2, Red-eyed Vireo 12, Northern Parula 14, Yellow-rumped (Myrtle) Warbler 6, Yellow-throated Warbler 3, Pine Warbler 5, Prairie Warbler 8, Prothonotary Warbler 4, Kentucky Warbler 1, Common Yellowthroat 4, Hooded Warbler 6, Yellow-breasted Chat 3, Summer Tanager 6, Northern Cardinal 17, Blue Grosbeak 5, Indigo Bunting 5, Painted Bunting 3, Eastern Towhee 6, Chipping Sparrow 18, Red-winged Blackbird 14, Eastern Meadowlark 10, Common Grackle 8, Brown-headed Cowbird 2, House Finch 35, American Goldfinch 35, House Sparrow 8.

Total: 85 species; 706 individuals.

Coordinator: Teddy Shuler, 433 Sheraton Drive, Beech Island, SC 29841-5514. Participants: Ned Shuler, Teddy Shuler.

Beaufort County, SC (Coastal and Outer Coastal Plain). 7:30 AM to 8:00 PM. Temp. 65° to 74° F. Wind E, 5 to 15 mph. AM partly cloudy; PM partly cloudy. Regular observers: 2 in field in 1 party. Total regular party-hours: 10.5; total regular party-miles: 106; 5 hours and 3 miles on foot; 5.5 hours and 103 miles by car. Totals: 10.5 party-hours; 106 party-miles; 2 participants.

Brown Pelican 100, Double-crested Cormorant 12, Anhinga 1, Great Blue Heron 8, Great Egret 225, Snowy Egret 1260, Little Blue Heron 31, Tricolored Heron 211, Cattle Egret 110, Green Heron 12, Black-crowned Night-Heron 13, White Ibis 25, Wood Stork 38, Blue-winged Teal 4, Red-breasted Merganser 1, Black Vulture 38, Turkey Vulture 7, Osprey 18, Red-tailed Hawk 3, Clapper Rail 7, Common Moorhen 4, Black-bellied Plover 41, Wilson's Plover 2, Semipalmated Plover 270, Killdeer 2, American Oystercatcher 26, Black-necked Stilt 3, Willet 10, Spotted Sandpiper 1, Whimbrel 18, Marbled

Godwit 4, Ruddy Turnstone 11, Red Knot 270, Sanderling 80, Semipalmated Sandpiper 20, Least Sandpiper 4, Dunlin 116, Laughing Gull 105, Ring-billed Gull 44, Herring Gull 10, Royal Tern 200, Sandwich Tern 62, Forster's Tern 55, Black Skimmer 80, Mourning Dove 41, Common Ground-Dove 8, Common Nighthawk 6, Chuck-will's-widow 2, Chimney Swift 6, Ruby-throated Hummingbird 2, Red-bellied Woodpecker 5, Northern (Yellow-shafted) Flicker 1, Great Crested Flycatcher 5, Eastern Kingbird 8, Purple Martin 4, Barn Swallow 18, Blue Jay 9, American Crow 18, Fish Crow 2, Carolina Chickadee 14, Carolina Wren 5, Marsh Wren 7, Blue-gray Gnatcatcher 3, Eastern Bluebird 12, Northern Mockingbird 44, Brown Thrasher 4, Loggerhead Shrike 1, European Starling 9, Yellow Warbler 1, Summer Tanager 2, Northern Cardinal 30, Painted Bunting 24, Eastern Towhee 7, Red-winged Blackbird 92, Boat-tailed Grackle 113, Common Grackle 46, Brown-headed Cowbird 10.

Total: 77 species; 4121 individuals.

Coordinator: Judy Halleron, 35 Ocean Marsh Lane, Harbor Island, St. Helena, SC 29920. Participants: George Halleron, Judy Halleron.

Charleston County, SC (Coastal and Outer Coastal Plain). 5:00 AM to 8:20 PM. Temp. 51° to 73° F. Wind NW to SW, 5 to 20 mph. AM partly cloudy; PM clear. Regular observers: 42 in field in 17 parties. Total regular party-hours: 122.75; total regular party-miles: 516.5; 77 hours and 34.5 miles on foot; 41.75 hours and 470 miles by car; 2 hours and 6 miles by bike; 2 hours and 6 miles by golf cart. Feeders: 9 observers, 14 feeding stations, 22 hours watching feeders. Owling observers: 3 in 3 parties; owling party-hours: 3; owling party-miles: 0.5. Totals: 147.75 party-hours; 517 party-miles; 47 participants.

Common Loon 1, Pied-billed Grebe 2, Brown Pelican 105, Double-crested Cormorant 110, Anhinga 99, Least Bittern 1, Great Blue Heron 47, Great Egret 347, Snowy Egret 182, Little Blue Heron 104, Tricolored Heron 88, Cattle Egret 71, Green Heron 76, Black-crowned Night-Heron 15, Yellow-crowned Night-Heron 13, White Ibis 50, Glossy Ibis 14, Wood Stork 145, Canada Goose 14, Wood Duck 57, Mottled Duck 28, Mallard 17, Hooded Merganser 10, Red-breasted Merganser 4, Black Vulture 75, Turkey Vulture 147, Osprey 40, Swallow-tailed Kite 17, Mississippi Kite 18, Bald Eagle 5, Sharp-shinned Hawk 3, Cooper's Hawk 3, Red-shouldered Hawk 26, Broad-winged Hawk 1, Red-tailed Hawk 39, American Kestrel 4, Wild Turkey 2, Northern Bobwhite 25, Clapper Rail 18, King Rail 5, Virginia Rail 1, Common Moorhen 34, American Coot 155, Black-bellied Plover 25, Semipalmated Plover 803, Piping Plover 3, Killdeer 24, American Oystercatcher 17, Black-necked Stilt 31, Greater Yellowlegs 24, Lesser Yellowlegs 44, Solitary Sandpiper 27, Willet 52, Spotted Sandpiper 31, Whimbrel 271, Ruddy Turnstone 11, Sanderling 72, Semipalmated Sandpiper 210, Western Sandpiper 59, Least Sandpiper 227, White-rumped Sandpiper 3, peep sp. 109, Pectoral Sandpiper 6, Dunlin 66, Stilt Sandpiper 3, Short-billed Dowitcher 56, dowitcher sp. 6, Wilson's Phalarope 1, Laughing Gull 445, Ring-billed Gull 67, Herring Gull 12, Gull-billed Tern 5, Caspian Tern 5, Royal Tern 63, Sandwich Tern 12, Common Tern 10, Forster's Tern 3, Least Tern 128, Black Tern 10, Black Skimmer 18, Rock Dove 55, Mourning Dove 275, Common Ground-Dove 4, Black-billed Cuckoo 6, Yellow-billed Cuckoo 43, Barn Owl 5, Eastern Screech-Owl 6, Great Horned Owl 5, Barred Owl 9, Common Nighthawk 6, Chuck-will's-widow 40, Chimney Swift 200, Ruby-throated Hummingbird 30, Belted Kingfisher 3, Red-headed Woodpecker 39, Red-bellied Woodpecker 128, Downy Woodpecker 26, Hairy Woodpecker 5, Red-cockaded Woodpecker 15, Northern (Yellow-shafted) Flicker 16, Pileated Woodpecker 43, Eastern Wood-Pewee 59, Acadian Flycatcher 31, Willow Flycatcher 1, Eastern Phoebe 1, Great Crested Flycatcher 379, Eastern Kingbird 180, Purple Martin 219, Tree Swallow 592, Northern Rough-winged Swallow 26, Bank Swallow 16, Cliff Swallow 1, Barn Swallow 247, Blue Jay 158, American Crow 147, Fish Crow 69, crow sp. 85, Carolina Chickadee 217, Tufted Titmouse 217, White-breasted Nuthatch 20, Brown-headed Nuthatch 43, Carolina Wren 183, Marsh Wren 75, Blue-gray Gnatcatcher 165, Eastern Bluebird 71, Wood Thrush 11, American Robin 18, Gray Catbird 6, Northern Mockingbird 249, Brown Thrasher 242, Cedar Waxwing 85, Loggerhead Shrike 35, European Starling 171, White-eyed Vireo 82, Blue-headed Vireo 1, Yellow-throated Vireo 16, Red-eyed Vireo 34, Northern Parula 96, Yellow Warbler 2, Magnolia Warbler 1, Cape May Warbler 1, Black-throated Blue Warbler 8, Yellow-rumped (Myrtle) Warbler 3, Yellow-throated Warbler 55, Pine Warbler 104, Prairie Warbler 8, Palm Warbler 1, Black-and-white Warbler 1, Prothonotary Warbler 30, Worm-eating Warbler 2, Swainson's Warbler 1, Ovenbird 6, Kentucky Warbler 6, Common Yellowthroat 60, Hooded Warbler 27, Yellow-breasted Chat 14, Summer Tanager 92, Scarlet Tanager 1, Northern Cardinal 390, Rose-breasted Grosbeak 1, Blue Grosbeak 33, Indigo Bunting 59, Painted Bunting 71, Eastern Towhee 123, Bachman's Sparrow 21, Chipping Sparrow 16, Savannah Sparrow 4, Seaside Sparrow 36, White-crowned Sparrow 3, Bobolink 13, Red-winged Blackbird 1039, Boat-tailed Grackle 891, Common Grackle 551, Brown-headed Cowbird 87, Orchard Oriole 123, Baltimore Oriole 2, House Finch 38, American Goldfinch 4, House Sparrow 36.

Total: 176 species; 14,348 individuals.

Coordinator: Perry Nugent, 2260 Dallerton Circle, Charleston, SC 29414. Participants: Van Atkins, Michaelle Aldenderfer, Paul Aldenderfer, Gifford Beaton, Manfred Bentz, Michael Bentz, Carl Broadwell, Sharon Brown, Danny Carlson, Peg Clark, Dick Clark, Edward Conradi, Sandra Conradi, Bob Cowgill, George Crumley, Tom Donehue, John Dunbar, Ruby Dunbar, David Elliott, Janice Fanning, Dennis Forsythe, Donna Forsythe, Sybil Fromme, Peggy Lee Fulmer, Bill Hass, Fernanda Hastie, Tom Hilton, Joan Hylander, Elizabeth King, Ann Lape, Phil Lape, George Muller, Perry Nugent, Dean Oliver, Ernie Peupis, Ben Smith, Liz Smylie, Tony Speno, Joe Stevenot, Martha Stevenot, Betty Stringfellow, Ursula Stuercken, Ann Talbert, Russ Thompson, Craig Watson, Charles Walters, Betty Zimmerman.

Cherokee County, SC (Piedmont). 7:00 AM to 10:00 PM. Temp. 46° to 73° F. Wind 5 to 10 mph. AM clear; PM clear. Regular observers: 11 in field in 7 parties. Total regular party-hours: 15.5; total regular party-miles: 72; 9.5 hours and 8 miles on foot; 6 hours and 64 miles by car. Feeders: 3 observers, 2 feeding stations, 4.5 hours watching feeders. Owling observers: 1 in 1 party; owling party-hours: 0.5; owling party-miles: 0. Totals: 20.5 party-hours; 72 party-miles; 11 participants.

Double-crested Cormorant 4, Great Blue Heron 1, Canada Goose 55, Mallard 2, Black Vulture 21, Turkey Vulture 4, Red-tailed Hawk 5, American Kestrel 1, Wild Turkey 3, Northern Bobwhite 9, Killdeer 1, Rock Dove 13, Mourning Dove 69, Common Nighthawk 1, Whip-poor-will 2, Chimney Swift 56, Ruby-throated Hummingbird 2, Red-headed Woodpecker 1, Red-bellied Woodpecker 5, Downy Woodpecker 1, Northern (Yellow-shafted) Flicker 9, Pileated Woodpecker 4, Eastern Wood-Pewee 3, Eastern Phoebe 5, Great Crested Flycatcher 2, Eastern Kingbird 9, Purple Martin 16, Barn Swallow 42, Blue Jay 45, American Crow 73, Carolina Chickadee 20, Tufted Titmouse 10, Brown-headed Nuthatch 4, Carolina Wren 14, Blue-gray Gnatcatcher 10, Eastern Bluebird 54, Swainson's Thrush 1, Wood Thrush 1, American Robin 89, Gray Catbird 2, Northern Mockingbird 61, Brown Thrasher 23, Cedar Waxwing 16, European Starling 70, White-eyed Vireo 1, Warbling Vireo 1, Red-eyed Vireo 2, Yellow Warbler 1, Magnolia Warbler 1, Yellow-rumped (Myrtle) Warbler 6, Pine Warbler 3, Prairie Warbler 4, American Redstart 2, Common Yellowthroat 2, Yellow-breasted Chat 3, Summer Tanager 1, Northern Cardinal 38, Blue Grosbeak 4, Indigo Bunting 10, Dickcissel 2, Eastern Towhee 12, Chipping Sparrow 10, Field Sparrow 4, Grasshopper Sparrow 1, Bobolink 1, Red-winged Blackbird 26, Eastern Meadowlark 52, Common Grackle 52, Brown-headed Cowbird 13, Orchard Oriole 2, House Finch 14, American Goldfinch 12, House Sparrow 11.

Total: 73 species; 1130 individuals.

Coordinator: Lyle Campbell, 126 Greengate Lane, Spartanburg, SC 2930. Participants: Michael Bennett, David Campbell, Lyle Campbell, Travis Childers, Claud Cobb, Debbie Kaemmerlen, Stephen Kaemmerlen, Scott Kitts, Alan Rose, Ed Wilde, Les Young.

Chester County, SC (Piedmont). 7:15 AM to 10:00 PM. Temp. 48° to 73° F. Wind SW, 10 to 20 mph. AM clear; PM clear. Regular observers: 3 in field in 1 party. Total regular party-hours: 13.25; total regular party-miles: 93; 11.75 hours and 7 miles on foot; 1.5 hours and 86 miles by car. Owling observers: 2 in 1 party; owling party-hours: 1.5; owling party-miles: 0. Totals: 14.75 party-hours; 93 party-miles; 3 participants.

Double-crested Cormorant 4, Green Heron 1, Canada Goose 6, Wood Duck 2, Mallard 2, Black Vulture 2, Turkey Vulture 7, Sharp-shinned Hawk 1, Red-tailed Hawk 6, American Kestrel 1, Killdeer 2, Solitary Sandpiper 1, Spotted Sandpiper 3, Least Sandpiper 4, Common Snipe 1, Rock Dove 2, Mourning Dove 12, Barn Owl 1, Barred Owl 1, Common Nighthawk 3, Chuck-will's-widow 1, Whip-poor-will 2, Red-bellied Woodpecker 2, Eastern Wood-Pewee 1, Eastern Phoebe 2, Great Crested Flycatcher 5, Eastern Kingbird 2, Purple Martin 22, Tree Swallow 11, Northern Rough-winged Swallow 2, Cliff Swallow 2800, Barn Swallow 17, Blue Jay 5, American Crow 11, Fish Crow 3, Tufted Titmouse 3, Carolina Wren 3, Eastern Bluebird 5, American Robin 4, Gray Catbird 2, Northern Mockingbird 14, Brown Thrasher 3, Loggerhead Shrike 1, European Starling 51, Northern Parula 2, Black-throated Green Warbler 1, Pine Warbler 3, Prairie Warbler 1, Common Yellowthroat 1, Yellow-breasted Chat 5, Summer Tanager 2, Northern Cardinal 13, Blue Grosbeak 4, Indigo Bunting 1, Eastern Towhee 1, Chipping Sparrow 2, Field Sparrow 3, Savannah Sparrow 1, Grasshopper Sparrow 2, Bobolink 10, Red-winged Blackbird 6, Eastern Meadowlark 4, Common Grackle 15, Brown-headed Cowbird 1, Orchard Oriole 1, House Finch 1, House Sparrow 5.

Total: 68 species; 3117 individuals.

Coordinator: Albert Conway, 1672 Deer Run Road, Catawba, SC 29704. Participants: Albert Conway, Gail B. Ice, Faye Metzl.

Fairfield County, SC (Piedmont). 4:30 AM to 8:30 PM. Temp. 50° to 72° F. Wind N to W, 10 to 15 mph. AM partly cloudy; PM partly cloudy. Regular observers: 3 in field in 1 party. Total regular party-hours: 13.5; total regular party-miles: 173; 3.5 hours and 4 miles on foot; 10 hours and 169 miles by car. Owling observers: 1 in 1 party; owling party-hours: 2; owling party-miles: 23. Totals: 15.5 party-hours; 195 party-miles; 3 participants.

Double-crested Cormorant 61, Great Blue Heron 2, Great Egret 3, Cattle Egret 4, Green Heron 4, Canada Goose 8, Wood Duck 5, Mallard 4, Black Vulture 16, Turkey Vulture 26, Osprey 2, Cooper's Hawk 1, Red-shouldered Hawk 4, Red-tailed Hawk 9, American Kestrel 1, Wild Turkey 5, Northern Bobwhite 2, Killdeer 2, Spotted Sandpiper 2, Ring-billed Gull 5, Rock Dove 8, Mourning Dove 18, Yellow-billed Cuckoo 5, Eastern Screech-Owl 1, Barred Owl 3, Chuck-will's-widow 6, Whip-poor-will 7, Chimney Swift 13, Ruby-throated Hummingbird 3, Belted Kingfisher 1, Red-headed Woodpecker 5, Red-bellied Woodpecker 11, Downy Woodpecker 5, Hairy Woodpecker 2, Northern (Yellow-shafted) Flicker 1, Pileated Woodpecker 2, Eastern Wood-Pewee 8, Acadian Flycatcher 5, Eastern Phoebe 7, Great Crested Flycatcher 17, Eastern Kingbird 20, Purple Martin 39, Northern Rough-winged Swallow 14, Bank Swallow 15, Cliff Swallow 27, Barn Swallow 44, Blue Jay 17, American Crow 89, Fish Crow 22, Carolina Chickadee 14, Tufted Titmouse 23, Brown-headed Nuthatch 4, Carolina Wren 28, House Wren 3, Blue-gray Gnatcatcher 14, Eastern Bluebird 15, Swainson's Thrush 2, Wood Thrush 8, American Robin 15, Gray Catbird 5, Northern Mockingbird 36, Brown Thrasher 10, Cedar Waxwing 102, European Starling 8, White-eyed Vireo 11, Yellow-throated Vireo 4, Red-eyed Vireo 31, Northern Parula 11, Yellow Warbler 3, Black-throated Blue Warbler 3, Yellow-rumped (Myrtle) Warbler 4, Yellow-throated Warbler 2, Pine Warbler 18, Prairie Warbler 14, Blackpoll Warbler 4, Black-and-white Warbler 2, American Redstart 2, Prothonotary Warbler 2, Ovenbird 2, Northern Waterthrush 4, Louisiana Waterthrush 1, Kentucky Warbler 2, Common Yellowthroat 18, Hooded Warbler 2, Yellow-breasted Chat 12, Summer Tanager 10, Scarlet Tanager 6, Northern Cardinal 52, Rose-breasted Grosbeak 3, Blue Grosbeak 6, Indigo Bunting 33, Eastern Towhee 22, Bachman's Sparrow 1, Chipping Sparrow 8, Field Sparrow 24, Song Sparrow 1, Swamp Sparrow 1, Red-winged Blackbird 9, Eastern Meadowlark 10, Common Grackle 27, Brown-headed Cowbird 10, Orchard Oriole 17, House Finch 15, American Goldfinch 16, House Sparrow 6.

Total: 105 species; 1297 individuals.

Coordinator: Donna Bailey, Rt. 3, Box 64 FH, Winnsboro, SC 29180. Participants: Buddy Bailey, Donna Bailey, Robin Carter.

Georgetown County, SC (Coastal and Outer Coastal Plain). Regular observers: 5 in field in 2 parties. Total regular party-hours: 15.75; total regular party-miles: 97; 12.75 hours and 9 miles on foot; 3 hours and 88 miles by car. Totals: 15.75 party-hours; 97 party-miles; 5 participants.

Brown Pelican 21, Double-crested Cormorant 33, Anhinga 7, Great Blue Heron 8, Great Egret 14, Snowy Egret 3, Little Blue Heron 5, Tricolored Heron 3, Cattle Egret 3, Green Heron 3, Glossy Ibis 8, Wood Duck 3, Lesser Scaup 1, Black Vulture 7, Turkey Vulture 24, Osprey 7, Mississippi Kite 2, Red-shouldered Hawk 3, Red-tailed Hawk 4, Clapper Rail 1, American Coot 20, Black-bellied Plover 21, Wilson's Plover 4, Semipalmated Plover 47, Killdeer 1, American Oystercatcher 8, Greater Yellowlegs 1, Solitary Sandpiper 2, Willet 6, Spotted Sandpiper 3, Whimbrel 4, Ruddy Turnstone 5, Sanderling 9, Semipalmated Sandpiper 30, Dunlin 3, Short-billed Dowitcher 25, Long-billed Dowitcher 1, Laughing Gull 3, Ring-billed Gull 15, Herring Gull 20, Lesser Black-backed Gull 1, Caspian Tern 8, Royal Tern 30, Sandwich Tern 7, Common Tern 6, Forster's Tern 4, Least Tern 28, Rock Dove 7, Mourning Dove 38, Common Ground-Dove 1, Yellow-billed Cuckoo 3, Barred Owl 1, Common Nighthawk 1, Chimney Swift 35, Ruby-throated Hummingbird 1, Red-bellied Woodpecker 18, Downy Woodpecker 8, Northern (Yellow-shafted) Flicker 1, Pileated Woodpecker 4, Eastern Wood-Pewee 3, Acadian Flycatcher 2, Great Crested Flycatcher 31, Eastern Kingbird 12, Purple Martin 29, Tree Swallow 8, Barn Swallow 72, Blue Jay 15, American Crow 58, Fish Crow 1, Carolina Chickadee 21, Tufted Titmouse 11, White-breasted Nuthatch 1, Brown-headed Nuthatch 7, Carolina Wren 13, Blue-gray Gnatcatcher 65, Eastern Bluebird 14, Gray Catbird 2, Northern Mockingbird 48, Brown Thrasher 16, Loggerhead Shrike 7, European Starling 28, White-eyed Vireo 10, Yellow-throated Vireo 1, Red-eyed Vireo 11, Northern Parula 10, Black-throated Blue Warbler 1, Yellow-throated Warbler 7, Pine Warbler 24, Prothonotary Warbler 18, Common Yellowthroat 4, Yellow-breasted Chat 8, Summer Tanager 21, Northern Cardinal 54, Blue Grosbeak 3, Indigo Bunting 30, Painted Bunting 1, Eastern Towhee 12, Savannah Sparrow 3, Bobolink 4, Red-winged Blackbird 226, Boat-tailed Grackle 22, Common Grackle 40, Brown-headed Cowbird 27, Orchard Oriole 26, House Sparrow 1.

Total: 105 species; 1618 individuals.

Coordinator: Jack Peachey, 103 Walnut Circle, Conway, SC 29526. Participants: David Donmoyer, Jack Peachey, Paul Rogers, Steve Shultz, Tonya Spires.

Greenville County, SC (Mountains and Piedmont). 6:00 AM to 7:00 PM. Temp. 46° to 72° F. Wind W, 5 to 15 mph. AM clear; PM clear. Regular observers: 16 in field in 10 parties. Total regular party-hours: 70; total regular party-miles: 469.5; 50 hours and 25.5 miles on foot; 20 hours and 444 miles by car. Feeders: 1 observer, 1 feeding station, 4 hours watching feeders. Totals: 74 party-hours; 469.5 party-miles; 17 participants.

Great Blue Heron 5, Green Heron 4, Canada Goose 188, Mallard 74, Ring-necked Duck 1, Hooded Merganser 1, Black Vulture 15, Turkey Vulture 27, Sharp-shinned Hawk 1, Cooper's Hawk 2, Red-shouldered Hawk 2, Broad-winged Hawk 1, Red-tailed Hawk 20, American Kestrel 1, Peregrine Falcon 1, Wild Turkey 3, Northern Bobwhite 13, American Coot 1, Killdeer 18, Spotted Sandpiper 8, Ring-billed Gull 1, Rock Dove 11, Mourning Dove 179, Yellow-billed Cuckoo 2, Eastern Screech-Owl 2, Whip-poor-will 1, Chimney Swift 166, Ruby-throated Hummingbird 6, Belted Kingfisher 3, Red-bellied Woodpecker 34, Downy Woodpecker 12, Hairy Woodpecker 2, Northern (Yellow-shafted) Flicker 10, Pileated Woodpecker 9, Eastern Wood-Pewee 16, Acadian Flycatcher 2, Eastern Phoebe 27, Great Crested Flycatcher 10, Eastern Kingbird 36, Purple Martin 12, Tree Swallow 2, Northern Rough-winged Swallow 10, Cliff Swallow 1, Barn Swallow 100, Blue Jay 89, American Crow 154, crow sp. 5, Common Raven 2, Carolina Chickadee 38, Tufted Titmouse 55, Brown-headed Nuthatch 3, Carolina Wren 45, House Wren 3, Ruby-crowned Kinglet 2, Blue-gray Gnatcatcher 23, Eastern Bluebird 136, Swainson's Thrush 1, Wood Thrush 5, American Robin 134, Gray Catbird 4, Northern Mockingbird 131, Brown Thrasher 53, Cedar Waxwing 30, Loggerhead Shrike 4, European Starling 247, White-eyed Vireo 3, Blue-headed Vireo 8, Yellow-throated Vireo 2, Red-eyed Vireo 43, Tennessee Warbler 1, Northern Parula 4, Yellow Warbler 2, Magnolia Warbler 2, Cape May Warbler 1, Black-throated Blue Warbler 5, Yellow-rumped (Myrtle) Warbler 16, Blackburnian Warbler 1, Pine Warbler 8, Prairie Warbler 1, Bay-breasted Warbler 1, Blackpoll Warbler 3, Black-and-white Warbler 4, American Redstart 4, Worm-eating Warbler 6, Ovenbird 7, Louisiana Waterthrush 1, Kentucky Warbler 4, Common Yellowthroat 10, Hooded Warbler 2, Yellow-breasted Chat 9, Summer Tanager 4, Scarlet Tanager 14, Northern Cardinal 123, Rose-breasted Grosbeak 10, Blue Grosbeak 16, Indigo Bunting 150, Eastern Towhee 66, Chipping Sparrow 23, Field Sparrow 30, Grasshopper Sparrow 8, Song Sparrow 19, White-throated Sparrow 12, Dark-eyed Junco 3, Bobolink 80, Red-winged Blackbird 35, Eastern Meadowlark 58, Common Grackle 161, Brown-headed Cowbird 9, Orchard Oriole 1, Baltimore Oriole 2, House Finch 25, American Goldfinch 51, House Sparrow 41.

Total: 112 species; 3292 individuals.

Coordinator: Peter Worthington, 716 North Almond Drive, Simpsonville, SC 29681-3452. Participants: Phil Blue, Sandy Blue, Randy Cecil, Greg Cornwell, Preston Davies, Sam Hood, Len Kopka, Sue Lessner, Nancy Lyman, Barbara Maxwell, Bob Maxwell, Eric McFalls, Kyle Rollins, Linda Sharp, Gary Sowell, Betty Worthington, Peter Worthington.

Hampton County, SC (Inner Coastal Plain). 6:05 AM to 8:45 PM. Temp. 55° to 78° F. Wind 0 to 5 mph. AM partly cloudy; PM partly cloudy. Regular observers: 2 in field in 1 party. Total regular party-hours: 14.65; total regular party-miles: 136; 9.15 hours and 5 miles on foot; 5.5 hours and 131 miles by car. Totals: 14.65 party-hours; 136 party-miles; 2 participants.

Double-crested Cormorant 2, Anhinga 11, Great Blue Heron 12, Great Egret 21, Snowy Egret 1, Little Blue Heron 42, Cattle Egret 43, Green Heron 6, Yellow-crowned Night-Heron 8, White Ibis 414, Wood Stork 8, Canada Goose 7, Wood Duck 3, Black Vulture 45, Turkey Vulture 26, Swallow-tailed Kite 1, Mississippi Kite 3, Bald Eagle 9, Red-shouldered Hawk 2, Northern Bobwhite 2, Purple Gallinule 2, Common Moorhen 5, Killdeer 1, Rock Dove 2, Mourning Dove 25, Common Ground-Dove 2, Great Horned Owl 3, Barred Owl 1, Chuck-will's-widow 3, Chimney Swift 20, Ruby-throated Hummingbird 3, Red-headed Woodpecker 11, Red-bellied Woodpecker 12, Downy Woodpecker 1, Red-cockaded Woodpecker 2, Pileated Woodpecker 3, Eastern Wood-Pewee 1, Great Crested Flycatcher 5, Eastern Kingbird 11, Purple Martin 3, Tree Swallow 36, Barn Swallow 12, Blue Jay 7, American Crow 5, Fish Crow 4, crow sp. 35, Tufted Titmouse 4, White-breasted Nuthatch 4, Brown-headed Nuthatch 8, Carolina Wren 2, Blue-gray Gnatcatcher 11, Eastern Bluebird 32, Gray Catbird 5, Northern Mockingbird 22, Brown Thrasher 3, Loggerhead Shrike 8, European Starling 8, White-eyed Vireo 3, Northern Parula 3, Yellow-throated Warbler 3, Pine Warbler 6, Blackpoll Warbler 1, American Redstart 1, Common Yellowthroat 3, Summer Tanager 5, Northern Cardinal 14, Blue Grosbeak 9, Indigo Bunting 2, Painted Bunting 2, Eastern Towhee 3, Chipping Sparrow 3, White-throated Sparrow 1, Bobolink 31, Red-winged Blackbird 21, Common Grackle 52, Brown-headed Cowbird 8, Orchard Oriole 5, House Finch 2, House Sparrow 2.

Total: 79 species; 1169 individuals.

Coordinator: Carroll Richard, P.O. Box 893, Hampton, SC 29924. Participants: Carroll Richard, Bob Richard.

Horry County, SC (Coastal and Outer Coastal Plain). 6:45 AM to 8:30 PM. Regular observers: 7 in field in 2 parties. Total regular party-hours: 19.07; total regular party-miles: 125; 13.5 hours and 5 miles on foot; 5.57 hours and 120 miles by car. Totals: 19.07 party-hours; 125 party-miles; 7 participants.

Double-crested Cormorant 2, Anhinga 1, Great Blue Heron 3, Great Egret 9, Little Blue Heron 4, Cattle Egret 1, Green Heron 3, White Ibis 60, Canada Goose 10, Wood Duck 6, Mallard 26, Turkey Vulture 15, Osprey 4, Swallow-tailed Kite 7, Red-shouldered Hawk 2, Red-tailed Hawk 5, Wild Turkey 5, Killdeer 10, Spotted Sandpiper 1, Ruddy Turnstone 11, Sanderling 28, Laughing Gull 2, Bonaparte's Gull 2, Ring-billed Gull 29, Forster's Tern 3, Least Tern 5, Rock Dove 18, Mourning Dove 99, Yellow-billed Cuckoo 5, Common Nighthawk 5, Chuck-will's-widow 2, Whip-poor-will 1, Chimney Swift 31, Ruby-throated Hummingbird 13, Belted Kingfisher 1, Red-headed Woodpecker 10, Red-bellied Woodpecker 11, Downy Woodpecker 3, Pileated Woodpecker 3, Eastern Wood-Pewee 4, Acadian Flycatcher 1, Least Flycatcher 1, Great Crested Flycatcher 31, Eastern Kingbird 16, Purple Martin 34, Tree Swallow 14, Barn Swallow 45, Blue Jay 22, American Crow 40, Fish Crow 3, Carolina Chickadee 19, Tufted Titmouse 16, White-breasted Nuthatch 7, Brown-headed Nuthatch 9, Carolina Wren 12, Blue-gray Gnatcatcher 28, Eastern Bluebird 37, Veery 3, Swainson's Thrush 1, Wood Thrush 1, American Robin 12, Gray Catbird 3, Northern Mockingbird 38, Brown Thrasher 30, Cedar Waxwing 4, Loggerhead Shrike 9, European Starling 61, White-eyed Vireo 4, Yellow-throated Vireo 2, Red-eyed Vireo 12, Tennessee Warbler 2, Northern Parula 16, Yellow Warbler 11, Magnolia Warbler 2, Black-throated Blue Warbler 3, Yellow-rumped (Myrtle) Warbler 1, Pine Warbler 12, Prairie Warbler 1, Blackpoll Warbler 4, Black-and-white Warbler 9. American Redstart 9, Prothonotary Warbler 9, Ovenbird 3, Common Yellowthroat 5, Hooded Warbler 2, Yellow-breasted Chat 5, Summer Tanager 17, Northern Cardinal 48, Blue Grosbeak 14, Indigo Bunting 20, Eastern Towhee 11, Chipping Sparrow 5, Savannah Sparrow 1, White-throated Sparrow 1, Bobolink 200, Red-winged Blackbird 90, Eastern Meadowlark 15, Boat-tailed Grackle 5, Common Grackle 65, Brown-headed Cowbird 38, Orchard Oriole 24, Baltimore Oriole 4, House Sparrow 12.

Total: 103 species; 1637 individuals.

Coordinator: Tonya Spires, P.O. Box 2167, Conway, SC 29526. Participants: David Donmoyer, Charley Heacock, Tonya Spires, Phil Turner, Sharon Turner, Ann Malys Wilson, Lee Wilson.

Jasper County, SC (Coastal and Outer Coastal Plain). 7:30 AM to 8:00 PM. Temp. 50° to 70° F. Wind WNW, 3 to 7 mph. AM partly cloudy; PM partly cloudy. Regular observers: 11 in field in 6 parties. Total regular party-hours: 23; total regular party-miles 57; 11 hours and 7 miles on foot; 9 hours and 42 miles by car; 3 hours and 8 miles by boat. Totals: 23 party-hours; 57 party-miles; 11 participants.

Brown Pelican 6, Double-crested Cormorant 8, Anhinga 19, Least Bittern 1, Great Blue Heron 10, Great Egret 128, Snowy Egret 54, Little Blue Heron 6, Tricolored Heron 18, Cattle Egret 87, Green Heron 13, Black-crowned Night-Heron 3, Yellow-crowned Night-Heron 15, White Ibis 15, Glossy Ibis 1, Wood Stork 35, Wood Duck 2, American Black Duck 4, Mottled Duck 2, Mallard 8, Northern Pintail 2, Blue-winged Teal 22, Northern Shoveler 4, Ring-necked Duck 1, Ruddy Duck 3, Black Vulture 17, Turkey Vulture 33, Osprey 2, Mississippi Kite 1, Bald Eagle 2, Northern Harrier 2, Cooper's Hawk 1, Accipiter sp. 1, Red-tailed Hawk 4, Wild Turkey 2, Northern Bobwhite 1, Clapper Rail 1, King Rail 12, Purple Gallinule 6, Common Moorhen 48, American Coot 28, Sandhill Crane 2, Black-bellied Plover 6, Semipalmated Plover 14, Killdeer 26, Black-necked Stilt 69, American Avocet 49, Greater Yellowlegs 61, Lesser Yellowlegs 34, Willet 6, Spotted Sandpiper 25, Whimbrel 2, Sanderling 14, Semipalmated Sandpiper 285, Western Sandpiper 154, Least Sandpiper 70, White-rumped Sandpiper 6, peep sp. 1, Dunlin 38, Stilt Sandpiper 126, Short-billed Dowitcher 20, Common Snipe 1, Laughing Gull 3, Ring-billed Gull 6, Herring Gull 1, Caspian Tern 2, Royal Tern 39, Forster's Tern 17, Least Tern 40, Rock Dove 33, Mourning Dove 40, Barred Owl 1, Common Nighthawk 1, Chimney Swift 21, Ruby-throated Hummingbird 2, Belted Kingfisher 2, Red-bellied Woodpecker 15, Downy Woodpecker 2, Pileated Woodpecker 7, Eastern Wood-Pewee 4, Acadian Flycatcher 2, Great Crested Flycatcher 24, Eastern Kingbird 23, Tree Swallow 115, Barn Swallow 25, Blue Jay 12, American Crow 28, Fish Crow 21, crow sp. 4, Carolina Chickadee 10, Tufted Titmouse 10, Brown-headed Nuthatch 8, Carolina Wren 11, Marsh Wren 5, Blue-gray Gnatcatcher 6, Eastern Bluebird 6, American Robin 3, Gray Catbird 1, Northern Mockingbird 14, Brown Thrasher 8, Loggerhead Shrike 4, White-eyed Vireo 3, Yellow-throated Vireo 2, Red-eyed Vireo 4, Northern Parula 8, Pine Warbler 13, Black-and-white Warbler 1, American Redstart 4, Prothonotary Warbler 5, Common Yellowthroat 4, Summer Tanager 8, Northern Cardinal 37, Blue Grosbeak 1, Indigo Bunting 1, Painted Bunting 11, Eastern Towhee 4, Savannah Sparrow 18, Swamp Sparrow 1, White-throated Sparrow 1, Bobolink 534, Red-winged Blackbird 360, Boat-tailed Grackle 110, Common Grackle 37, Brown-headed Cowbird 10, Orchard Oriole 1.

Total: 123 species; 3406 individuals.

Coordinator: Patricia E. Metz, 7 Beneta Court, Savannah, GA 31406. Participants: Raewyn Empson, Heidi Hughes, Gail Krueger, Barry Lowes, Philomena Lowes, Patricia Metz, Ray Porter, Richard Schultz, Jr., John Stafford, Tom Valega, Doug Wyatt.

Lexington County, SC (Piedmont and Inner Coastal Plain). 7:30 AM to 9:00 PM. Temp. 50° to 72° F. AM partly cloudy; PM partly cloudy. Regular observers: 5 in field in 3 parties. Total regular party-hours: 18.5; total regular party-miles: 105; 11 hours and 6 miles on foot; 7.5 hours and 96 miles by car. Feeders: 1 observer, 1 feeding station, 1 hour watching feeders. Owling observers: 1 in 1 party; owling party-hours: 1; owling party-miles: 4. Totals: 20.5 party-hours; 109 party-miles; 5 participants.

Double-crested Cormorant 1, Great Blue Heron 1, Canada Goose 22, Wood Duck 6, Black Vulture 1, Turkey Vulture 17, Mississippi Kite 1, Red-shouldered Hawk 1, Red-tailed Hawk 5, Northern Bobwhite 2, Killdeer 5, Spotted Sandpiper 2, Caspian Tern 1, Rock Dove 7, Mourning Dove 36, Eastern Screech-Owl 4, Common Nighthawk 1, Chuck-will's-widow 4, Chimney Swift 36, Ruby-throated Hummingbird 6, Belted Kingfisher 1, Red-headed Woodpecker 8, Red-bellied Woodpecker 20, Downy Woodpecker 10, Hairy Woodpecker 2, Northern (Yellow-shafted) Flicker 2, Pileated Woodpecker 2, Eastern Wood-Pewee 3, Acadian Flycatcher 1, Great Crested Flycatcher 18, Eastern Kingbird 6, Purple Martin 2, Northern Rough-winged Swallow 13, Barn Swallow 21, Blue Jay 30, American Crow 29, Fish Crow 9, crow sp. 8, Carolina Chickadee 27, Tufted Titmouse 31, Brown-headed Nuthatch 13, Carolina Wren 20, Blue-gray Gnatcatcher 8, Eastern Bluebird 10, Swainson's Thrush 2, Wood Thrush 4, American Robin 27, Gray Catbird 8, Northern Mockingbird 26, Brown Thrasher 18, Loggerhead Shrike 2, European Starling 4, White-eyed Vireo 9, Red-eyed Vireo 10, Northern Parula 7, Chestnut-sided Warbler 3, Magnolia Warbler 3, Cape May Warbler 1, Black-throated Blue Warbler 7, Pine Warbler 14, Palm Warbler 1, Blackpoll Warbler 6, Black-and-white Warbler 3, American Redstart 11, Ovenbird 6, Northern Waterthrush 2, Louisiana Waterthrush 1, Kentucky Warbler 2, Common Yellowthroat 6, Wilson's Warbler 1, Canada Warbler 1, Yellow-breasted Chat 2, Summer Tanager 4, Northern Cardinal 35, Rose-breasted Grosbeak 4, Indigo Bunting 12, Eastern Towhee 17, Chipping Sparrow 6, Field Sparrow 1, Eastern Meadowlark 3, Common Grackle 24, Brown-headed Cowbird 10, Orchard Oriole 1, House Finch 16, American Goldfinch 7, House Sparrow 8.

Total: 85 species; 791 individuals.

Coordinator: Molly Bonnell, 202 Cannon Trail Road, Lexington, SC 29073. Participants: Molly Bonnell, Jerry Griggs, Malia Griggs, Tom Hankins, Roger Smith.

Oconee County, SC (Mountains and Piedmont). 7:04 AM to 5:30 PM. Temp. 49° to 72° F. Wind W, 5 to 10 mph. AM cloudy; PM cloudy. Regular observers: 9 in field in 4 parties. Total regular party-hours: 32.75; total regular party-miles: 249; 12.75 hours and 8 miles on foot; 20 ours and 241 miles by car. Totals: 32.75 party-hours; 241 party-miles; 9 participants.

Pied-billed Grebe 1, Double-crested Cormorant 4, Green Heron 1, Canada Goose 42, Wood Duck 2, Red-breasted Merganser 1, Black Vulture 6, Turkey Vulture 57, Sharp-shinned Hawk 2, Cooper's Hawk 1, Accipiter sp. 1, Red-shouldered Hawk 4, Broad-winged Hawk 1, Red-tailed Hawk 4, Northern Bobwhite 2, Least Sandpiper 1, Ring-billed Gull 18, Rock Dove 1, Mourning Dove 35, Yellow-billed Cuckoo 1, Chimney Swift 99, Ruby-throated Hummingbird 3, Belted Kingfisher 2, Red-bellied Woodpecker 8, Downy Woodpecker 2, Hairy Woodpecker 3, Northern (Yellow-shafted) Flicker 5, Pileated Woodpecker 3, Eastern Wood-Pewee 2, Acadian Flycatcher 4, Eastern Phoebe 30, Great Crested Flycatcher 5, Eastern Kingbird 15, Purple Martin 91, Tree Swallow 21, Northern Rough-winged Swallow 47, Bank Swallow 18, Cliff Swallow 14, Barn Swallow 94, Blue Jay 29, American Crow 51, Fish crow 8, crow sp. 8, Carolina Chickadee 62, Tufted Titmouse 78, White-breasted Nuthatch 2, Brown-headed Nuthatch 4, Carolina Wren 21, Ruby-crowned Kinglet 1, Blue-gray Gnatcatcher 16, Eastern Bluebird 50, Veery 1, Wood Thrush 8, American Robin 46, Gray Catbird 9, Northern Mockingbird 21, Brown Thrasher 12, Cedar Waxwing 31, European Starling 49, White-eyed Vireo 4, Blue-headed Vireo 4, Red-eyed Vireo 40, Northern Parula 12, Yellow Warbler 9, Magnolia Warbler 3, Black-throated Blue Warbler 5, Yellow-rumped (Myrtle) Warbler 4, Black-throated Green Warbler 16, Blackburnian Warbler 3, Yellow-throated Warbler 7, Pine Warbler 11, Prairie Warbler 6, Bay-breasted Warbler 1, Blackpoll Warbler 7, Cerulean Warbler 1, Black-and-white Warbler 7, American Redstart 8, Prothonotary Warbler 1, Worm-eating Warbler 2, Ovenbird 9, Louisiana Waterthrush 2, Kentucky Warbler 1, Common Yellowthroat 19, Hooded Warbler 18, Yellow-breasted Chat 6, Summer Tanager 4, Scarlet Tanager 6, Northern Cardinal 55, Rose-breasted Grosbeak 2, Blue Grosbeak 9, Indigo Bunting 64, Eastern Towhee 12, Chipping Sparrow 7, Field Sparrow 1, Grasshopper Sparrow 1, Song Sparrow 1, White-throated Sparrow 2, Dark-eyed Junco 2, Bobolink 36, Red-winged Blackbird 41, Eastern Meadowlark 18, Common Grackle 52, Brown-headed Cowbird 8, Orchard Oriole 5, House Finch 5, American Goldfinch 60, House Sparrow 3.

Total: 105 species; 1747 individuals.

Coordinator: Steve Wagner, 316 East Creswell, Greenwood, SC 29646. Participants: Chris Cline, Mike Goldstein, Drew Lanham, Larry LeCroy, Nancy Lyman, Vince Pack, Steve Sheffield, Gary Sowell, Steve Wagner.

Richland County, SC (Piedmont and Inner Coastal Plain). 7:00 AM to 8:15 PM. Temp. 55° to 72° F. Wind NW, 5 to 20 mph. AM partly cloudy; PM partly cloudy. Regular observers: 4 in field in 3 parties. Total regular party-hours: 23.5; total regular party-miles: 92; 19.5 hours and 7 miles on foot; 4 hours and 85 miles by car. Owling observers: 2 in 1 party; owling party-hours 0.25; owling party-miles: 0. Totals: 23.75 party-hours; 92 party-miles; 4 participants.

Double-crested Cormorant 4, Great Blue Heron 3, Great Egret 2, Little Blue Heron 1, Green Heron 3, Canada Goose 36, Wood Duck 2, Mallard 15, Black Vulture 2, Turkey Vulture 1, Broad-winged Hawk 5, Red-tailed Hawk 4, American Kestrel 2, Killdeer 7, Spotted Sandpiper 3, Ring-billed Gull 1, Rock Dove 72, Mourning Dove 89, Eastern Screech-Owl 2, Common Nighthawk 1, Chuck-will's-widow 2, Chimney Swift 109, Red-headed Woodpecker 2, Red-bellied Woodpecker 13, Downy Woodpecker 3, Northern (Yellow-shafted) Flicker 4, Pileated Woodpecker 3, Eastern Wood-Pewee 4, Acadian Flycatcher 1, Eastern Phoebe 1, Great Crested Flycatcher 14, Eastern Kingbird 19, Horned Lark 5, Purple Martin 36, Northern Rough-winged Swallow 12, Barn Swallow 28, Blue Jay 27, American Crow 19, Fish Crow 9, crow sp. 16, Carolina Chickadee 25, Tufted Titmouse 14, White-breasted Nuthatch 1, Brown-headed Nuthatch 12, Carolina Wren 23, Blue-gray Gnatcatcher 19, Eastern Bluebird 12, Swainson's Thrush 1, Wood Thrush 5, American Robin 31, Gray Catbird 6, Northern Mockingbird 68, Brown Thrasher 7, Cedar Waxwing 20, Loggerhead Shrike 11, European Starling 113, White-eyed Vireo 15, Red-eyed Vireo 6, Northern Parula 10, Black-throated Blue Warbler 2, Pine Warbler 54, American Redstart 8, Prothonotary Warbler 5, Swainson's Warbler 1, Ovenbird 2, Northern

Waterthrush 1, Common Yellowthroat 9, Yellow-breasted Chat 1, Summer Tanager 3, Northern Cardinal 77, Blue Grosbeak 3, Indigo Bunting 8, Eastern Towhee 18, Field Sparrow 1, Bobolink 21, Red-winged Blackbird 19, Eastern Meadowlark 7, Common Grackle 107, Brown-headed Cowbird 19, Orchard Oriole 1, House Finch 42, House Sparrow 14.

Total: 81 species; 1404 individuals.

Coordinator: Robin Carter, 4165 East Buchanan Drive, Columbia, SC 29206. Participants: Steve Dennis, Caroline Eastman, Henry Fuseler, Tammy Sutherland.

Saluda County, SC (Piedmont). 6:30 AM to 9:00 PM. Temp. 55° to 70° F. Wind 5 to 20 mph. AM clear; PM clear. Regular observers: 3 in field in 1 party. Total regular party-hours: 14.5; total regular party-miles 152; 2 hours and 2 miles on foot; 12.5 hours and 150 miles by car. Owling observers: 3 in 1 party; owling party-hours: 1; owling party-miles 15. Totals: 15.5 party-hours; 167 party-miles; 3 participants.

Double-crested Cormorant 4, Great Blue Heron 1, Green Heron 4, Canada Goose 22, Mallard 2, Black Vulture 6, Turkey Vulture 29, Osprey 3, Red-shouldered Hawk 2, Red-tailed Hawk 8, Northern Bobwhite 12, Killdeer 3, Rock Dove 3, Mourning Dove 44, Yellow-billed Cuckoo 2, Eastern Screech-Owl 1, Great Horned Owl 1, Barred Owl 1, Chuck-will's-widow 1, Whip-poor-will 2, Chimney Swift 30, Ruby-throated Hummingbird 2, Belted Kingfisher 2, Red-headed Woodpecker 4, Red-bellied Woodpecker 20, Downy Woodpecker 11, Hairy Woodpecker 2, Northern (Yellow-shafted) Flicker 2, Pileated Woodpecker 1, Eastern Wood-Pewee 15, Acadian Flycatcher 6, Eastern Phoebe 10, Great Crested Flycatcher 40, Eastern Kingbird 31, Horned Lark 5, Purple Martin 97, Northern Rough-winged Swallow 4, Bank Swallow 1, Cliff Swallow 25, Barn Swallow 30, Blue Jay 15, American Crow 18, Fish Crow 5, Carolina Chickadee 22, Tufted Titmouse 26, Brown-headed Nuthatch 19, Carolina Wren 41, Blue-gray Gnatcatcher 33, Eastern Bluebird 53, Swainson's Thrush 1, Wood Thrush 14, American Robin 17, Gray Catbird 3, Northern Mockingbird 42, Brown Thrasher 18, Cedar Waxwing 31, Loggerhead Shrike 4, European Starling 14, White-eyed Vireo 24, Blue-headed Vireo 3, Yellow-throated Vireo 9, Red-eyed Vireo 32, Northern Parula 14, Yellow Warbler 2, Chestnut-sided Warbler 1, Magnolia Warbler 2, Black-throated Blue Warbler 8, Yellow-rumped (Myrtle) Warbler 1, Yellow-throated Warbler 4, Pine Warbler 45, Prairie Warbler 14, Blackpoll Warbler 5, Black-and-white Warbler 15, American Redstart 30, Prothonotary Warbler 1, Ovenbird 5, Northern Waterthrush 1, Louisiana Waterthrush 5, Kentucky Warbler 7, Common Yellowthroat 26, Hooded Warbler 7, Yellow-breasted Chat 27, Summer Tanager 24, Scarlet Tanager 10, Northern Cardinal 37, Rose-breasted Grosbeak 1, Blue Grosbeak 28, Indigo Bunting 33, Eastern Towhee 35, Chipping Sparrow 17, Field Sparrow 13, Savannah Sparrow 3, Bobolink 72, Red-winged Blackbird 25, Eastern Meadowlark 28, Common Grackle 15, Brown-headed Cowbird 8, Orchard Oriole 10, House Finch 13, American Goldfinch 8, House Sparrow 10.

Total: 101 species; 1543 individuals.

Coordinator: Tim Kalbach, 3113 River Drive, Columbia, SC 29201 Participants: Melanie Kalbach, Tim Kalbach, Bob Wood.

Spartanburg County, SC (Piedmont). Temp. 46° to 73° F. Wind N, 5 to 12 mph. AM clear; PM clear. Regular observers: 16 in field in 9 parties. Total regular party-hours: 69.5; total regular party-miles: 365; 31.25 hours and 27 miles on foot; 38.25 hours and 338 miles by car. Feeders: 31 observers, 22 feeding stations, 36 hours watching feeders. Owling observers: 3 in 2 parties; owling party-hours: 2, owling party-miles 25. Totals: 107.5 party-hours; 390 party-miles; 47 participants.

Double-crested Cormorant 1, Great Blue Heron 10, Green Heron 3, Canada Goose 53, Wood Duck 11, Mallard 56, Black Vulture 48, Turkey Vulture 26, Osprey 2, Cooper's Hawk 2, Red-shouldered Hawk 6, Red-tailed Hawk 8, Buteo sp. 1, American Kestrel 5, Northern Bobwhite 10, Killdeer 26, Greater Yellowlegs 11, Lesser Yellowlegs 10, Solitary Sandpiper 9, Spotted Sandpiper 6, Semipalmated Sandpiper 1, Western Sandpiper 4, Baird's Sandpiper 1, Rock Dove 91, Mourning Dove 178, Barn Owl 1, Common Nighthawk 1, Chuck-will's-widow 12, Whip-poor-will 11, Chimney Swift 229, Ruby-throated Hummingbird 8, Belted Kingfisher 8, Red-headed Woodpecker 2, Red-bellied Woodpecker 30, Yellow-bellied Sapsucker 2, Downy Woodpecker 10, Hairy Woodpecker 3, Northern (Yellow-shafted) Flicker 11, Pileated Woodpecker 7, Eastern Wood-Pewee 4, Acadian Flycatcher 3, Willow Flycatcher 1, Eastern Phoebe 20, Great Crested Flycatcher 4, Eastern Kingbird 46, Purple Martin 50, Northern Rough-winged Swallow 20, Bank Swallow 1, Cliff Swallow 6, Barn Swallow 127, Blue Jay 131, American Crow 253, Carolina Chickadee 56, Tufted Titmouse 56, White-breasted Nuthatch 4, Brown-headed Nuthatch 16, Carolina Wren 52, Blue-gray Gnatcatcher 22, Eastern Bluebird 140, Veery 3, Wood Thrush 9, American Robin 154, Gray Catbird 8, Northern Mockingbird 124, Brown Thrasher 63, Cedar Waxwing 44, European Starling 249, White-eyed Vireo 2, Red-eyed Vireo 20, Lawrence's Warbler 1, Northern Parula 11, Yellow Warbler 2, Chestnut-sided

Warbler 1, Magnolia Warbler 1, Black-throated Blue Warbler 1, Yellow-rumped (Myrtle) Warbler 19, Yellow-throated Warbler 4, Pine Warbler 15, Prairie Warbler 5, Blackpoll Warbler 4, Black-and-white Warbler 2, American Redstart 7, Louisiana Waterthrush 2, Common Yellowthroat 11, Yellow-breasted Chat 4, Summer Tanager 10, Scarlet Tanager 12, Northern Cardinal 154, Rose-breasted Grosbeak 3, Blue Grosbeak 30, Indigo Bunting 62, Eastern Towhee 30, Chipping Sparrow 56, Field Sparrow 22, Vesper Sparrow 1, Savannah Sparrow 3, Grasshopper Sparrow 11, Bobolink 60, Red-winged Blackbird 55, Eastern Meadowlark 53, Common Grackle 266, Brown-headed Cowbird 30, Orchard Oriole 3, Baltimore Oriole 1, House Finch 78, American Goldfinch 20, House Sparrow 19.

Total: 106 species; 3667 individuals.

Coordinator: Lyle Campbell, 126 Greengate Lane, Spartanburg, SC 29307. Participants: Robbie Allen, Tom Allen, Frankie Altman, Steve Barr, David Barry, John Barry, Susan Barry, Anna Bennett, Michael Bennett, Susan Bennett, Tim Brown, David Campbell, Lyle Campbell, Matthew Campbell, Matthew Coleman, John Derrick, Julia Derrick, Stan Easley, Judy Edmonds, Roy Fowler, Pat Fowler, John Freeman, Shena Freeman, Robin Gilman, Bill Glenn, Teresa Glenn, Becky Gray, John Green, Stephen Harris, J. B. Hines, Myra Hines, Jack Jennings, Flip Jones, Lisa Lever, John Lever, Mickey Marotte, Gail Medlain, Mary Ann Meyers, Bill Moody, Gil Newberry, Gibbs Patton, Ken Pearson, Lisa Pearson, Robert Powell, Doug Rayner, Mac Shealy, Gerald Thurmond.

Williamsburg County, SC (Outer Coastal Plain). 6:30 AM to 8:30 PM. Temp. 58° to 74° F. Wind NW, 5 mph. Regular observers: 4 in 1 party. Total regular party-hours: 6.5; total regular party-miles: 38.25; 3.5 hours and 3 miles on foot; 2 hours and 35 miles by car; 2 hours and 0.25 miles by boat. Owling observers: 1 in 1 party; owling party-hours 1; owling party-miles 0. Totals: 7.5 party-hours; 38.25 party-miles; 4 participants.

Double-crested Cormorant 8, Anhinga 6, Great Blue Heron 1, Great Egret 4, Snowy Egret 1, Little Blue Heron 3, Cattle Egret 14, Green Heron 2, White Ibis 10, Canada Goose 8, Wood Duck 2, Hooded Merganser 4, Turkey Vulture 10, Swallow-tailed Kite 1, Mississippi Kite 3, Red-shouldered Hawk 4, Red-tailed Hawk 3, Wild Turkey 11, Northern Bobwhite 2, Killdeer 2, Greater Yellowlegs 2, Spotted Sandpiper 6, Least Sandpiper 22, Rock Dove 5, Mourning Dove 26, Yellow-billed Cuckoo 3, Barred Owl 2, Chuck-will's-widow 3, Chimney Swift 8, Ruby-throated Hummingbird 6, Red-headed Woodpecker 2, Red-bellied Woodpecker 6, Downy Woodpecker

1, Hairy Woodpecker 1, Pileated Woodpecker 4, Eastern Wood-Pewee 2, Acadian Flycatcher 2, Great Crested Flycatcher 8, Eastern Kingbird 4, Horned Lark 1, Purple Martin 8, Tree Swallow 10, Barn Swallow 6, Blue Jay 8, American Crow 15, Carolina Chickadee 6, Tufted Titmouse 8, White-breasted Nuthatch 3, Carolina Wren 10, Blue-gray Gnatcatcher 7, Eastern Bluebird 9, Wood Thrush 1, American Robin 1, Northern Mockingbird 7, Brown Thrasher 4, Loggerhead Shrike 5, European Starling 15, White-eyed Vireo 5, Red-eyed Vireo 2, Northern Parula 5, Yellow-throated Warbler 1, Pine Warbler 1, Prairie Warbler 1, Black-and-white Warbler 3, American Redstart 1, Prothonotary Warbler 5, Swainson's Warbler 1, Kentucky Warbler 1, Common Yellowthroat 1, Hooded Warbler 2, Yellow-breasted Chat 6, Summer Tanager 4, Northern Cardinal 11, Blue Grosbeak 5, Indigo Bunting 3, Eastern Towhee 1, Chipping Sparrow 1, Red-winged Blackbird 1, Eastern Meadowlark 3, Common Grackle 5, Brown-headed Cowbird 4, Orchard Oriole 3, House Finch 6, American Goldfinch 2.

Total: 84 species; 420 individuals.

Coordinator: John Snow, Route 1, Box 192, Hemingway, SC 29554. Participants: John Snow, George Sutton, Paula Sutton, Sally Sutton.

Summary of Spring 1997 NAMC in South Carolina

(The figures in parentheses indicate the number of counties which recorded a species.)

Common Loon 1 (1), Pied-billed Grebe 5 (3), Brown Pelican 232 (4), Double-crested Cormorant 273 (17), Anhinga 159 (9), Least Bittern 2 (2), Great Blue Heron 122 (16), Great Egret 764 (11), Snowy Egret 1501 (6), Little Blue Heron 199 (9), Tricolored Heron 320 (4), Cattle Egret 359 (10), Green Heron 141 (16), Black-crowned Night-Heron 31 (3), Yellow-crowned Night-Heron 36 (3), White Ibis 574 (6), Glossy Ibis 23 (3), Wood Stork 226 (4), Canada Goose 503 (15), Wood Duck 142 (14), American Black Duck 4 (1), Mottled Duck 30 (2), Mallard 217 (12), Northern Pintail 2 (1), Blue-winged Teal 26 (2), Northern Shoveler 4 (1), Ring-necked Duck 2 (2), Lesser Scaup 1 (1), Hooded Merganser 15 (3), Red-breasted Merganser 6 (3), Ruddy Duck 3 (1), Black Vulture 338 (16), Turkey Vulture 478 (18), Osprey 82 (10), Swallow-tailed Kite 26 (4), Mississippi Kite 43 (7), Bald Eagle 19 (5), Northern Harrier 2 (1), Sharp-shinned Hawk 8 (5), Cooper's Hawk 11 (7), Accipiter sp. 2 (2), Red-shouldered Hawk 69 (13), Broad-winged Hawk 8 (4), Red-tailed Hawk 135 (17), Buteo sp. 3 (2), American Kestrel 15 (7), Peregrine Falcon 1 (1), Wild Turkey 73 (10), Northern Bobwhite 100 (13), Clapper Rail

27 (4), King Rail 17 (2), Virginia Rail 1 (1), Purple Gallinule 8 (2), Common Moorhen 91 (4), American Coot 210 (5), Sandhill Crane 2 (1), Black-bellied Plover 93 (4), Wilson's Plover 6 (2), Semipalmated Plover 1135 (5), Piping Plover 3 (1), Killdeer 141 (16), American Oystercatcher 51 (3), Black-necked Stilt 103 (3), American Avocet 49 (1), Greater Yellowlegs 118 (6), Lesser Yellowlegs 88 (3), Solitary Sandpiper 43 (5), Willet 74 (4), Spotted Sandpiper 125 (14), Whimbrel 295 (4), Marbled Godwit 4 (1), Ruddy Turnstone 38 (4), Red Knot 270 (1), Sanderling 203 (5), Semipalmated Sandpiper 549 (6), Western Sandpiper 221 (4), Least Sandpiper 392 (7), White-rumped Sandpiper 14 (3), Baird's Sandpiper 1 (1), peep sp. 125 (3), Pectoral Sandpiper 7 (2), Dunlin 223 (4), Stilt Sandpiper 129 (2), Short-billed Dowitcher 101 (3), Long-billed Dowitcher 1 (1), dowitcher sp. 6 (1), Common Snipe 5 (3), Wilson's Phalarope 1 (1), Laughing Gull 558 (5), Bonaparte's Gull 2 (1), Ring-billed Gull 186 (9), Herring Gull 43 (4), Lesser Black-backed Gull 1 (1), Gull-billed Tern 5 (1), Caspian Tern 16 (4), Royal Tern 332 (4), Sandwich Tern 81 (3), Common Tern 16 (2), Forster's Tern 82 (5), Least Tern 201 (4), Black Tern 10 (1), Black Skimmer 98 (2), Rock Dove 347 (16), Mourning Dove 1396 (18), Common Ground-Dove 16 (5), Black-billed Cuckoo 6 (1), Yellow-billed Cuckoo 76 (10), Barn Owl 7 (3), Eastern Screech-Owl 16 (6), Great Horned Owl 10 (4), Barred Owl 20 (9), Common Nighthawk 26 (10), Chuck-will's-widow 77 (12), Whip-poor-will 25 (7), Chimney Swift 1192 (17), Ruby-throated Hummingbird 95 (16), Belted Kingfisher 29 (11), Red-headed Woodpecker 103 (12), Red-bellied Woodpecker 379 (18), Yellow-bellied Sapsucker 2 (1), Downy Woodpecker 103 (16), Hairy Woodpecker 22 (10), Red-cockaded Woodpecker 17 (2), Northern (Yellow-shafted) Flicker 68 (13), Pileated Woodpecker 114 (16), Eastern Wood-Pewee 146 (17), Acadian Flycatcher 75 (14), Willow Flycatcher 2 (2), Least Flycatcher 1 (1), Eastern Phoebe 103 (9), Great Crested Flycatcher 650 (18), Eastern Kingbird 497 (18), Horned Lark 14 (4), Purple Martin 667 (16), Tree Swallow 810 (10), Northern Rough-winged Swallow 172 (11), Bank Swallow 51 (5), Cliff Swallow 2874 (7), Barn Swallow 954 (18), Blue Jay 675 (18), American Crow 1134 (18), Fish Crow 197 (14), crow sp. 164 (8), Common Raven 2 (1), Carolina Chickadee 624 (15), Tufted Titmouse 644 (17), White-breasted Nuthatch 59 (9), Brown-headed Nuthatch 173 (15), Carolina Wren 524 (18), House Wren 6 (2), Marsh Wren 87 (3), Ruby-crowned Kinglet 3 (2), Blue-gray Gnatcatcher 460 (17), Eastern Bluebird 706 (18), Veery 8 (4), Swainson's Thrush 9 (7), Wood Thrush 70 (13), American Robin 565 (15), Gray Catbird 71 (16), Northern Mockingbird 1040 (18), Brown Thrasher 523 (18), Cedar Waxwing 370 (10), Loggerhead Shrike 106 (14), European Starling 1198 (17),

White-eyed Vireo 217 (16), Blue-headed Vireo 17 (5), Yellow-throated Vireo 40 (9), Warbling Vireo 1 (1), Red-eyed Vireo 288 (16), Lawrence's Warbler 1 (1), Tennessee Warbler 3 (2), Northern Parula 262 (16), Yellow Warbler 33 (9), Chestnut-sided Warbler 5 (3), Magnolia Warbler 15 (8), Cape May Warbler 3 (3), Black-throated Blue Warbler 43 (10), Yellow-rumped (Myrtle) Warbler 64 (10), Black-throated Green Warbler 17 (2), Blackburnian Warbler 4 (2), Yellow-throated Warbler 96 (10), Pine Warbler 366 (17), Prairie Warbler 63 (11), Palm Warbler 2 (2), Blackpoll Warbler 35 (9), Cerulean Warbler 1 (1), Black-and-white Warbler 46 (11), American Redstart 90 (13), Prothonotary Warbler 101 (11), Worm-eating Warbler 10 (3), Swainson's Warbler 3 (3), Ovenbird 40 (8), Northern Waterthrush 13 (5), Louisiana Waterthrush 12 (6), Kentucky Warbler 27 (9), Common Yellowthroat 194 (17), Hooded Warbler 67 (9), Wilson's Warbler 1 (1), Canada Warbler 4 (1), Yellow-breasted Chat 108 (15), Summer Tanager 244 (18), Scarlet Tanager 50 (7), Northern Cardinal 1302 (18), Rose-breasted Grosbeak 26 (8), Blue Grosbeak 180 (16), Indigo Bunting 550 (17), Painted Bunting 113 (7), Dickcissel 2 (1), Eastern Towhee 423 (18), Bachman's Sparrow 23 (3), Chipping Sparrow 183 (14), Field Sparrow 101 (10), Vesper Sparrow 1 (1), Savannah Sparrow 22 (7), Grasshopper Sparrow 23 (5), Seaside Sparrow 36 (1), Song Sparrow 21 (3), Swamp Sparrow 2 (2), White-throated Sparrow 17 (5), White-crowned Sparrow 3 (1), Dark-eyed Junco 5 (2), Bobolink 1102 (13), Red-winged Blackbird 2110 (17), Eastern Meadowlark 272 (13), Boat-tailed Grackle 1141 (5), Common Grackle 1628 (18), Brown-headed Cowbird 313 (18), Orchard Oriole 233 (16), Baltimore Oriole 10 (5), House Finch 330 (14), American Goldfinch 219 (11), House Sparrow 196 (15).

State-wide Total: 220 species, 47,703 individuals.

Observers: 158 in 74 parties; Party-hours: 305.65 hours on foot, 207.07 hours by car, 5 hours by boat, 2 hours by bicycle, 2 hours by golf cart. Party-miles: 173 miles on foot, 2810.5 miles by car, 8.25 miles by boat, 6 miles by bicycle, 2 miles by golf cart. Feeder watch: 67.5 hours by 45 watchers at 40 feeding stations. Owling: 12.5 hours and 67.5 miles by 17 observers in 12 parties.

Carolina Bird Club Web Site
http://members/aol.com/cbirdclub

Spring 1997 North American Migration Count in North Carolina

Dennis Burnette
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Greensboro, NC 27407

The Spring North American Migration Count (NAMC) for 1997 was conducted on 10 May and included reports from North Carolina for the fourth year. Reports from previous years may be found in earlier issues of *The Chat*. The spring NAMC is conducted annually throughout North America north of Mexico. Unlike traditional Christmas and spring counts that may be done during a two- or three-week period, the NAMC is conducted on a single day to obtain an annual continent-wide approximation of where the neotropical migrants are on the second Saturday in May. This is done by organizing volunteers in each state and province to count birds in an entire county or province, rather than in a smaller count circle. The NAMC was begun in 1992 by Jim Stasz, a birder in Maryland who is attempting to determine the pattern of migration in North America. North Carolina has participated since 1994.

Although a good number of migratory species were seen in the 1997 NAMC, the standardized annual date can be as much as two weeks after many migrants have passed through some parts of North Carolina. However, the purpose of the count is not to determine how many migrants are in a state or province at the peak of migration but rather to identify the density and distribution of bird species throughout the whole continent north of Mexico at a given point in time. Therefore, some species are likely to be gone from some southern states and will not have arrived yet in other states and provinces further north.

Participating Counties

Eighteen counties reported spring migration counts in 1997, the same number as in 1996. There were several new counties this year, however, and some which were counted last year that did not send a report. Counties in this count not reported in 1996 include Alamance, Macon, and Polk (reported in 1995 but not 1996). Counties represented in 1996 for which no reports were received in 1997 include Durham, Onslow, and Orange. Alleghany, Craven and Wilkes also have reported in previous years but not in 1997. The following is the list of counties (and county seats) for which reports were received for the

1997 North American Migration Count in North Carolina, by geographic region:

Mountain:Avery (Newland), Buncombe (Asheville), Cherokee (Murphy), part of Cleveland (Shelby), Henderson (Hendersonville), Macon (Franklin), and Transylvania (Brevard).
Piedmont: Alamance (Graham), Chatham (Pittsboro), part of Cleveland (Shelby), Forsyth (Winston-Salem), Guilford (Greensboro), and Randolph (Asheboro).
Coastal Plain: Cumberland (Fayetteville), Jones (Trenton), Moore (Carthage), Pitt (Greenville), and Polk (Columbus).
Coast: Brunswick (Southport).

The number of counties reporting in the four years of this state's participation in the NAMC has been far short of the potential (North Carolina has 100 counties). The density and distribution of bird species during spring migration in North Carolina and the continent will be better known with the inclusion of more counties in each of the state's regions in the future. Readers who are interested in such data are encouraged to contact the author to receive assistance in starting a spring migration count in their counties.

Summary Data

The NAMC uses the following definitions for the four reporting categories: "regular" - observers move from one place to another within a relatively large part of a whole county during the period from dawn to dusk; "night" (formerly "owling") - observers tally all species (not just owls) seen or heard from midnight until dawn and from dusk to midnight; "stationary" - observers spend a significant amount of time from dawn until dusk at one observation point and count birds that move past; and "feeder watching" - observers spend a minimum of one hour at one location counting birds that are attracted to a feeding station or stations, making an attempt to count the birds only once.

242 participants from 18 counties reported 36,890 individual birds (individuals by count categories: 35,838 regular, 18 night, 307 stationary, 727 feeder) of 225 species for the 1997 NAMC in North Carolina.

Parties/Observers: Regular parties included 212 observers in 100 parties. Night (Owling) parties included 27 observers in 13 parties. Stationary parties included 10 observers in 5 parties. Feeder Watching included 37 feeder observers watching 55 feeding stations. Hours: Party hours for all categories

totaled 750.29. Regular party hours totaled 624:14 and included 348:01 by foot, 255:43 by car, 9:00 by boat, 4:00 by bicycle, 3:30 by ATV, and 4:00 by golf cart. Night (Owling) hours totaled 13:45. Stationary hours totaled 16:30. Feeder Watching hours totaled 96:00. Miles: Party miles for all categories totaled 2530.45. Regular party miles totaled 2685.7, including 250.5 by foot, 2150.45 by car, 5 by boat, 3.5 by bicycle, 4 by ATV, and 5 by golf cart. Night (Owling) miles totaled 112.5

Rarities, Species of Note, and High Counts

Many of the county coordinators reported species that are uncommon in their counties, unusually late or early, present in remarkable numbers, or of special interest to birders in the Carolinas. Most of the coordinators contributed good details on the more unusual sightings.

In most of North Carolina the weather was more like March than early May on count day. Low temperatures ranged from well below freezing in the higher mountains (29 ° on Grandfather Mountain) to the 40's and low 50's in the eastern part of the state. Highs didn't get out of the 30's in the high mountains but did get into the lower 60's in the Piedmont and further east. A substantial number of counties reported high winds most of the day, with wind speeds topping out in the 20's and gusts above 30 mph in some locations. Compared to last year, fewer species were seen that are often associated with winter despite the wintry spring weather. An interesting feature of the 1997 count, however, is the seemingly larger number of spring migrants that overlapped with species normally seen in winter. Good numbers of duck species were still around in many of the counties. Most counties reported a good count of swallows, with four counties turning in a "grand slam" of all six swallow species. Warblers were recorded in good numbers this year, both in species and as individuals.

Alamance County produced 2 Ruby-crowned Kinglets that were a little late in leaving. In the high mountains the **Avery County** count again recorded several species that would be considered "winter" birds in most of the state, including 3 Red-breasted Nuthatches (one at a hummingbird feeder!), 2 Winter Wrens, and 9 Pine Siskins.

Brunswick County reported several interesting species: a pair of Horned Grebes in breeding plumage in a tidal creek at mid-tide on Ocean Isle Beach; Blue-winged Teal, American Wigeon, and Bufflehead hung around for the count; 5 Red-breasted Mergansers (compared to 16 last year), one female in a tidal creek at Ocean Isle Beach, three on a sandbar at Sunset Beach inlet, and one in the ocean, all females or first spring males; 2 American Coots, one on a cypress pond off Rt. 904 and the other on Lake Metcalf at Sea Island Plantation (a coot has lingered here as late as June for the past three years); and a Piping Plover was located at the west end of Sunset Beach.

Buncombe County birders reported two lingering duck species, a Ring-necked Duck and 2 Lesser Scaup, as well as both species of kinglets. Birders in **Chatham County** recorded 2 American Black Ducks, 1 Common Merganser, and 2 Red-breasted Mergansers, and was one of the counties that turned in a "grand slam" of all six swallow species. Chatham was the only county reporting Mississippi Kite and Bachman's Sparrow this year; 2 Bachman's were heard singing near Merry Oaks where a breeding colony was discovered several years ago. Cherokee County had 1 Gray-cheeked Thrush on the count. In **Cleveland County** 3 Dickcissels were heard in the general area where a pair were seen mating during the count week. **Cumberland County** had three species of lingering ducks, 7 American Black Ducks, 2 Canvasbacks, and a Ruddy Duck; 2 American Coots; an interesting sighting of the state's only reported Black Tern, an individual that was "doing its dance" over a pond near the confluence of Rockfish Creek and the Cape Fear River; and an excellent sighting of a well-described late Vesper Sparrow located on the site of the old Becker Sound diggings near where the tern was seen.

Counters in **Guilford County** spotted two duck species that were late in leaving, 4 Blue-winged Teal and 1 Ruddy Duck; 3 Bald Eagles (2 adults and 1 immature individual) continued the successful nesting at Lake Higgins for at least the fourth year; a Ruffed Grouse was uncommon for the county; a lingering American Coot was seen; and 2 Gray-cheeked Thrushes were reported.

Henderson County observers noted a Northern Harrier, one of only two reported in the state; an American Coot was "left over from the huge numbers that spend the winter"; and Henderson was one of the few counties reporting all six swallow species. Jackson Park yielded three interesting species, 2 Willow Flycatchers, which breed in the county; 1 Least Flycatcher, which was calling; and a Philadelphia Vireo (no details provided). A Swamp Sparrow and 2 Rusty Blackbirds also lingered. **Jones County** reported the only Least Bittern on the count; observers noted a Swallowtail Kite that was seen during count week but it wasn't located on count day; and 1 White-throated Sparrow was unusually late for the county. **Macon County** count was conducted by the newly formed Highlands Plateau chapter of the Audubon Society for the first time in 1997. Although they did not have the official instructions and checklist (and so did not record numbers of individuals), they did turn in records of the only Peregrine Falcon, Fox Sparrow, and Purple Finch reported in the state.

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Moore County reported 2 Mute Swans, part of the feral population that has bred at Wood Lake for several years. Also of interest were 3 thoroughly described Red-breasted Mergansers on Lake Pinehurst; a thoroughly described Merlin (the only one reported in the state); a lingering American Coot; and the only Red-cockaded Woodpecker reported in the state. **Pitt County** birders reported 53 Cattle Egrets, the only ones recorded in the state; a remarkable count of 120 Wood Ducks; 3 adult Bald Eagles; 2 White-rumped Sandpipers at the Greenville Sewage Treatment Plant; 1 Stilt Sandpiper (no details); 1 Gray-cheeked Thrush seen along Little Contentnea Creek; and 4 Henslow's Sparrows, the only ones on the count, at the Voice of America site where they breed.

Polk County turned in one of the several counts of all six species of swallows; 1 Gray-cheeked Thrush was reported; and the count yielded the only Cerulean Warbler and the only Savannah Sparrow on the state-wide count. **Randolph County** had a lingering American Coot and reported a Loggerhead Shrike, a species of concern in the central part of the state.

Transylvania County reported one of only two Northern Harriers in the state-wide count; a Sora that was seen from 22 April through 13 May was seen on count day; a Black-capped Chickadee, always an interesting species in North Carolina and the only one reported, was heard adjacent to the entry road to Black Balsam at almost 6000' elevation; a Red-headed Woodpecker, rare for the county, visited a feeder in Brevard for four days and was still there on count day; the state's only Brown Creeper was noted; 2 Winter Wrens (seen every year) were heard at 5500'; a well-described Philadelphia Vireo was located along a private lane just north of Solomon Jones Rd.; and a White-crowned Sparrow, which had been frequenting a feeder in Brevard, was still present on count day.

County Records

All data for individuals of each species reported below refer to regular party observations unless otherwise specified as night (owling), stationary or feeder watching data. (For definitions of each category, see above.)

Alamance County, NC. 0600 to 1200. Weather: wind 13-20 mph; clouds not reported; precipitation: none. Regular: 6 observers in 4 parties; regular hours foot 9:30; regular hours car 3:00; regular miles foot 5.5; regular miles car 54.0. No night (Owling) parties. Stationary: 1 observer in 1 party; stationary hours 2:30. No feeder watchers. County summary: 15 party hours; 54 party miles, 7 participants.

Great Blue Heron 1, Green Heron 1 (stationary), Canada Goose 20 (18 regular, 2 stationary), Turkey Vulture 4 (3 regular, 1 stationary), Cooper's Hawk 1, Red-shouldered Hawk 1, Red-tailed Hawk 3, Killdeer 8, Solitary Sandpiper 3, Spotted Sandpiper 2, Mourning Dove 20 (16 regular, 4 stationary), Common Nighthawk 1, Chimney Swift 514 (513 regular, 1 stationary), Ruby-throated Hummingbird 5 (2 regular, 3 stationary), Belted Kingfisher 2 (1 regular, 1 stationary), Red-bellied Woodpecker 12 (11 regular, 1 stationary), Downy Woodpecker 6, Hairy Woodpecker 1, Northern Flicker 1, Eastern Wood-Pewee 7, Acadian Flycatcher 8, Eastern Phoebe 2, Great Crested Flycatcher 3, Eastern Kingbird 5, Purple Martin 3, Northern Rough-winged Swallow 105, Barn Swallow 38, Blue Jay 12 (11 regular, 1 stationary), American Crow 28 (24 regular, 4 stationary), Carolina Chickadee 18 (13 regular, 5 stationary), Tufted Titmouse 24 (20 regular, 4 stationary), White-breasted Nuthatch 2, Brown-headed Nuthatch 2, Carolina Wren 23 (21 regular, 2 stationary),Ruby-crowned Kinglet 2, Blue-gray Gnatcatcher 18 (16 regular, 2 stationary), Eastern Bluebird 34, Veery 1, Swainson's Thrush 3 (1 regular, 2 stationary), Wood Thrush 7 (5 regular, 2 stationary), American Robin 48 (46 regular, 2 stationary), Gray Catbird 2 (1 regular, 1 stationary), Northern Mockingbird 10, Brown Thrasher 6 (5 regular, 1 stationary), Cedar Waxwing 2 (stationary), European Starling 23, Red-eyed Vireo 29 (24 regular, 5 stationary), Tennessee Warbler 2 (stationary), Northern Parula 12 (10 regular, 2 stationary), Yellow Warbler 3, Chestnut-sided Warbler 2 (stationary), Magnolia Warbler 1 (stationary), Black-throated Blue Warbler 8

(5 regular, 3 stationary), Yellow-rumped Warbler 9 (7 regular, 2 stationary), Pine Warbler 4, Black-and-white Warbler 5 (4 regular, 1 stationary), American Redstart 5 (2 regular, 3 stationary), Ovenbird 4 (3 regular, 1 stationary), Common Yellowthroat 9 6 regular, 3 stationary), Yellow-breasted Chat 2, Summer Tanager 1, Scarlet Tanager 6 (3 regular, 3 stationary), Northern Cardinal 21 (17 regular, 4 stationary), Blue Grosbeak 9 (8 regular, 1 stationary), Indigo Bunting 19 (15 regular, 4 stationary), Eastern Towhee 6 (5 regular, 1 stationary), Chipping Sparrow 17, Field Sparrow 2, White-throated Sparrow 1, Red-winged Blackbird 2, Eastern Meadowlark 4, Common Grackle 45, Brown-headed Cowbird 6, Baltimore Oriole 2, House Finch 1, American Goldfinch 10 (8 regular, 2 stationary), House Sparrow 7. Total: 77 species, 1301 individuals (1214 regular, 87 stationary).

County Compiler: Bobby Mize, 1114 McPherson Rd., Burlington, NC 27215. Participants: John Alderman, Alice Binkley, Steve Binkley, Allan Cammack, Thom Cox, Bobby Mize, Lynn Moseley.

Avery County, NC. 0630 to 1515. Weather: temperature 37° predawn, 42° AM, 55° PM; wind WNW 25-31 predawn, 32-46 noon, 19-24 PM; clouds 90% predawn 40% AM, 10% noon; precipitation none. Regular: 3 observers in 3 parties; regular hours foot 7:30; regular hours car 10:00; regular miles foot 4; regular miles car 91. No night (owling) parties. No stationary parties. Feeder watching: 2 observers watching 1 feeding station; hours feeder watching 1 . County summary: 8:30 party hours; 95 party miles, 4 participants.

Green Heron 1, Canada Goose 6, Wood Duck 1, Turkey Vulture 4, Broad-winged Hawk 1, Red-tailed Hawk 1, Solitary Sandpiper 1, Mourning Dove 6, Ruby-throated Hummingbird 4 (2 regular, 2 feeder), Downy Woodpecker 2, Hairy Woodpecker 1, Northern Flicker 1, Pileated Woodpecker 1, Eastern Phoebe 2, Tree Swallow 2, Northern Rough-winged Swallow 8, Barn Swallow 21, Blue Jay 13 (10 regular, 3 feeder), American Crow 47 (42 regular, 5 feeder), Common Raven 6, Carolina Chickadee 6 (5 regular, 1 feeder), Tufted Titmouse 12, Red-breasted Nuthatch 3 (1 regular, 2 feeder), House Wren 2, Winter Wren 2, Golden-crowned Kinglet 7, Ruby-crowned Kinglet 1, Veery 4, Wood Thrush 1, American Robin 27, Gray Catbird 5, European Starling 5, Blue-headed Vireo 15, Red-eyed Vireo 4, Chestnut-sided Warbler 5, Black-throated Blue Warbler 15, Black-throated Green Warbler 6, Palm Warbler 2, Ovenbird 5, Louisiana Waterthrush 1, Common Yellowthroat 1, Hooded Warbler 3, Canada Warbler 6, Scarlet Tanager 1, Northern Cardinal 11, Rose-breasted Grosbeak 4 (2 regular, 2 feeder), Indigo Bunting 2, Eastern Towhee 18 (17 regular, 1 feeder), Chipping Sparrow 2, Song

Sparrow 13, Dark-eyed Junco 68 (29 regular, 39 feeder), Red-winged Blackbird 5, Common Grackle 26, House Finch 6, Pine Siskin 9 (7 regular, 2 feeder), American Goldfinch 7, House Sparrow 3.

Total: 57 species, 434 individuals (376 regular, 0 night, 0 stationary, 58 feeder).

County Compiler: Margery R. Plymire, Box 843, Linville Falls, NC 28646. Participants: Willa Glines, Rad Mayfield, Margery Plymire, Stewart Skeate.

Brunswick County, NC. 0440 to 2200. Weather: temperature 50° dawn, 66° AM, 70° noon, 69° PM, 65° dusk; wind light dawn, light AM, moderate noon, moderate PM, light dusk; clouds none; precipitation none. Regular: 13 observers in 8 parties; regular hours foot 13:30; regular hours car 33:00; regular hours bicycle 4:00; regular hours golf cart 4:00; regular hours ATV 3:30; regular miles foot 13; regular miles car 340.5; regular miles golf cart 5; regular miles ATV 4. Night (Owling): 1 observer in 1 party; night hours 1:00; night miles 18. Stationary: 2 observers in 1 party; stationary hours 7:30. Feeder Watchers: 9 observers watching 18 feeding stations; feeder watching hours 4:00. County summary: 70:30 party hours; 392 party miles, 13 participants.

Common Loon 2, Pied-billed Grebe 1, Horned Grebe 2, Brown Pelican 57, Double-crested Cormorant 148, Anhinga 4 (2 regular, 2 stationary), Great Blue Heron 16, Great Egret 20, Snowy Egret 18, Little Blue Heron 3, Tricolor Heron 8, Cattle Egret 8, Green Heron 20 (19 regular, 1 stationary), Black-crowned Night Heron 3, White Ibis 147, Canada Goose 15, Wood Duck 20, Mallard 18, Blue-winged Teal 2, American Wigeon 1, Bufflehead 2, Red-breasted Merganser 5, Ruddy Duck 3, Black Vulture 17, Turkey Vulture 60, Osprey 16, Bald Eagle imm. 1, Northern Harrier 2 (1 regular, 1 stationary), Red-shouldered Hawk 7, Red-tailed Hawk 6, Buteo sp. 2, Northern Bobwhite 13 (12 regular, 1 stationary), Clapper Rail 7, Common Moorhen 9, American Coot 2, Black-bellied Plover 32, Wilson's Plover 6, Semi-palmated Plover 14, Piping Plover 1, Killdeer 16, American Oystercatcher 9, Greater Yellowlegs 23, Lesser Yellowlegs 3, Solitary Sandpiper 2, Willet 36, Spotted Sandpiper 25 (23 regular, 2 stationary), Whimbrel 48, Ruddy Turnstone 11, Red Knot 995, Sanderling 69, Semi-palmated Sandpiper 5, Western Sandpiper 14, Least Sandpiper 12, Dunlin 55, Peep sp. 79, Short-billed Dowitcher 34, Long-billed Dowitcher 23, Common Snipe 4, Laughing Gull 111, Bonaparte's Gull 3, Ring-billed Gull 33, Herring Gull 1, Great Black-backed Gull 1, Gull sp. 14, Gull-billed Tern 2, Caspian Tern 3, Royal Tern 134, Sandwich Tern 1, Common Tern 4, Forster's Tern 1, Sterna sp.8, Least Tern 34, Black Skimmer 47, Rock Dove 7, Mourning Dove 123, Yellow-billed Cuckoo 8, Common Nighthawk 4, Chuck-Will's-Widow 19, Whip-poor-will 7 , Chimney Swift 47, Belted Kingfisher 4, Red-headed Woodpecker 35 (29 regular, 6 feeder), Red-bellied Woodpecker 41 (39 regular, 2 feeder), Downy Woodpecker 11, Northern Flicker 12, Pileated Woodpecker 13, Eastern Wood-Pewee 10, Acadian Flycatcher 27, Great Crested Flycatcher 71, Eastern Kingbird 29, Purple Martin 123, Tree Swallow 2, Northern Rough-winged Swallow 25, Barn Swallow 245, Blue Jay 85 (76 regular, 4 stationary, 5 feeder), American Crow 44, Fish Crow 25, Crow sp. 29, Carolina Chickadee 52 (49 regular, 3 feeder), Tufted Titmouse 69 (56 regular, 3 stationary, 10 feeder), White-breasted Nuthatch 2, Brown-headed Nuthatch 17 (16 regular, 1 feeder), Carolina Wren 60 (56 regular, 3 stationary, 1 feeder), Blue-gray Gnatcatcher 23, Eastern Bluebird 71, Wood Thrush 15, American Robin 6 (5 regular, 1 feeder), Gray Catbird 5, Northern Mockingbird 111 (110 regular, 1 feeder), Brown Thrasher 29 (25 regular, 2 stationary, 2 feeder), Loggerhead Shrike 4, European Starling 101, White-eyed Vireo 33, Yellow-throated Vireo 9, Red-eyed Vireo 27, Northern Parula 28, Yellow-throated Warbler 12, Pine Warbler 49, Prairie Warbler 28 Prothonotary Warbler 38, Worm-eating Warbler 10, Swainson's Warbler 2, Ovenbird 15, Louisiana Waterthrush 2, Kentucky Warbler 1, Common Yellowthroat 31, Hooded Warbler 12, Yellow-breasted Chat 12, Summer Tanager 21, Northern Cardinal 125 (115 regular, 10 feeder), Blue Grosbeak 41, Indigo Bunting 68, Painted Bunting 2, Eastern Towhee 65, Chipping Sparrow 10, Song Sparrow 6, Red-winged Blackbird 103 (101 regular, 2 feeder), Eastern Meadowlark 8, Boat-tailed Grackle 190, Common Grackle 76, Brown-headed Cowbird 35, blackbird sp. 14, Orchard Oriole 35, House Finch 2, American Goldfinch 6, House Sparrow 27.

Total: 146 species, 5332 individuals (5269 regular, 0 night, 19 stationary, 44 feeder).

County Compiler: Diane Hahn, 269 Sea Trail Dr., Sunset Beach, NC 28468. Participants: Bert Bennett, Joanne Bennett, Judy Brown, Richard Brown, Carolyn Bush, Norman Bush, Diane Hahn, Linda Hauser, Betty Hewel, Dottie Isgrig, Mary McDavit, Lynn Petch, Jackie Seiole.

Buncombe County, NC. 0656 to 1530. Weather: temperature 39° dawn, 43° AM, 55° noon, 68° PM; wind N 25 mph dawn, N 25 AM, N 20 noon, N 15 PM; clouds 40% dawn, 50% AM, 30% noon, 25% PM; precipitation none. Regular: 10 observers in 7 parties; regular hours foot 21:15; regular hours car

07:15; regular miles foot 12.25; regular miles car 101. No night (owling) parties. No stationary parties. No feeder watchers. County summary: 28:30 party hours; 113.25 party miles; 10 participants.

Pied-billed Grebe 1, Great Blue Heron 1, Black-crowned Night Heron 1, Canada Goose 33, Mallard 2, Ring-necked Duck 1, Lesser Scaup 2, Turkey Vulture 8, Osprey 1, Red-shouldered Hawk 1, Broad-winged Hawk 3, Red-tailed Hawk 1, Northern Bobwhite 1, Spotted Sandpiper 4, Mourning Dove 30, Eastern Screech-owl 1, Chimney Swift 34, Ruby-throated Hummingbird 5, Red-bellied Woodpecker 7, Downy Woodpecker 7, Hairy Woodpecker 2, Northern Flicker 5, Pileated Woodpecker 13, Eastern Wood-Pewee 1, Acadian Flycatcher 3, Empidonax sp. 1, Eastern Phoebe 4, Great Crested Flycatcher 1, Eastern Kingbird 6, Tree Swallow 15, Northern Rough-winged Swallow 18, Barn Swallow 35, Blue Jay 25, American Crow 42, Common Raven 1, Carolina Chickadee 27, Tufted Titmouse 30, White-breasted Nuthatch 6, Brown-headed Nuthatch 1, Carolina Wren 25, House Wren 1, Golden-crowned Kinglet 3, Ruby-crowned Kinglet 2, Blue-gray Gnatcatcher 20, Eastern Bluebird 9, Veery 3, Hermit Thrush 1, Wood Thrush 4, American Robin 43, Gray Catbird 8, Northern Mockingbird 5, Brown Thrasher 3, Cedar Waxwing 15, European Starling 8, Blue-headed Vireo 6, Yellow-throated Vireo 4, Red-eyed Vireo 32, Tennessee Warbler 1, Northern Parula 7, Yellow Warbler 7, Chestnut-sided Warbler 6, Magnolia Warbler 5, Black-throated Blue Warbler 6, Yellow-rumped Warbler 6, Black-throated Green Warbler 5, Blackburnian Warbler 2, Yellow-throated Warbler 2, Pine Warbler 7, Palm Warbler 1, Blackpoll Warbler 1, Cerulean Warbler 3, Black-and-White Warbler 16, American Redstart 13, Worm-eating Warbler 7, Ovenbird 16, Northern Waterthrush 1, Kentucky Warbler 4, Common Yellowthroat 5, Hooded Warbler 10, Canada Warbler 4, Scarlet Tanager 22, Northern Cardinal 17, Rose-breasted Grosbeak 13, Indigo Bunting 42, Eastern Towhee 33, Chipping Sparrow 6, Field Sparrow 1, Song Sparrow 23, White-throated Sparrow 2, Dark-eyed Junco 7, Red-winged Blackbird 7, Common Grackle 6, Brown-headed Cowbird 3, Orchard Oriole 5, Baltimore Oriole 5, House Finch 3, American Goldfinch 41.

Total: 97 species, 943 individuals (943 regular, 0 night, 0 stationary, 0 feeder).

County Compiler: Ruth E. Young, P.O. Box 836, Fairview, NC 28730. Participants: Edward Caldwell, Sally Colburn, Kathleen Ford-Walters, Emilie Gardner, Nancy Herbert, Peggy Lasher, Linda Pyeritz, Rick Pyeritz, Eileen Wilson, Ruth Young.

Chatham County, NC. 0500 to 2000. Weather: temperature 42° dawn, 62° PM; wind 10-25 mph AM, 10-25 mph PM; clouds none dawn, none AM, 25% PM; precipitation not reported. Regular: 43 observers in 19 parties; regular hours foot 96:45; regular hours car 20:50, regular hours boat 9:00; regular miles foot 63; regular miles car 212, regular miles boat 5. Night (Owling): 10 observers in 4 parties; night hours 2:30, night miles 7.5. No stationary parties. No feeder watchers. County summary: 128:45 party hours; 287.5 party miles, 43 participants.

Common Loon 1, Double-crested Cormorant 258, Great Blue Heron 13, Green Heron 9, Canada Goose 69, Wood Duck 23, American Black Duck 2, Mallard 42, Common Merganser 1, Red-breasted Merganser 2, Black Vulture 20, Turkey Vulture 112, Osprey 20, Mississippi Kite 1, `Bald Eagle 4 (3 adults, 1 immature), Sharp-shinned Hawk 5, Coopers Hawk 6, Red-shouldered Hawk 10, Broad-winged Hawk 5, Red-tailed Hawk 15, Northern Bobwhite 4, Killdeer 37, Solitary Sandpiper 6, Spotted Sandpiper 25, Ring-billed Gull 217, Forster's Tern 2, Rock Dove 2, Rock Dove 18, Mourning Dove 143, Yellow-billed Cuckoo 3, Barred Owl 1 (night), Whip-poor-will 2 (night), Chimney Swift 108, Ruby-throated Hummingbird 8, Belted Kingfisher 2, Red-headed Woodpecker 6, Red-bellied Woodpecker 63, Downy Woodpecker 25, Hairy Woodpecker 4, Northern Flicker 18, Pileated Woodpecker 8, Eastern Wood-Pewee 29, Acadian Flycatcher 13, Eastern Phoebe 19, Great Crested Flycatcher 48, Eastern Kingbird 66, Purple Martin 116, Tree Swallow 31, Northern Rough-winged Swallow 35, Bank Swallow 2, Cliff Swallow 47, Barn Swallow 183, Blue Jay 94, American Crow 295, Fish Crow 13, Carolina Chickadee 143, Tufted Titmouse 157, White-breasted Nuthatch 8, Brown-headed Nuthatch 28, Carolina Wren 111, House Wren 3, Blue-gray Gnatcatcher 152, Eastern Bluebird 96, Veery 1, Swainson's Thrush 7, Wood Thrush 34, American Robin 63, Gray Catbird 10, Northern Mockingbird 48, Brown Thrasher 16, Cedar Waxwing 140, European Starling 112, White-eyed Vireo 24, Blue-headed Vireo 3, Yellow-throated Vireo 11, Red-eyed Vireo 216, Northern Parula 53, Yellow Warbler 5, Chestnut-sided Warbler 2, Magnolia Warbler 3, Black-throated Blue Warbler 34, Yellow-rumped Warbler 84, Blackburnian Warbler 1, Yellow-throated Warbler 58, Pine Warbler 142, Prairie Warbler 38, Palm Warbler 1, Bay-breasted Warbler 1, Blackpoll Warbler 30, Black-and-white Warbler 14, American Redstart 36, Prothonotary Warbler 7, Worm-eating Warbler 1, Ovenbird 46, Northern Waterthrush 3, Louisiana Waterthrush 13, Kentucky Warbler 2, Common Yellowthroat 65, Hooded Warbler 25, Yellow-breasted Chat 48, Summer Tanager 51, Scarlet Tanager 41, Northern Cardinal 191, Rose-breasted

Grosbeak 12, Blue Grosbeak 43, Indigo Bunting 104, Eastern Towhee 89, Bachman's Sparrow 2, Chipping Sparrow 46, Field Sparrow 52, Song Sparrow 1, Bobolink 50, Red-winged Blackbird 67, Eastern Meadowlark 42, Common Grackle 209, Brown-headed Cowbird 66, Orchard Oriole 18, Baltimore Oriole 4, House Finch 22, American Goldfinch 127, House Sparrow 28.

Total: 121 species, 5669 individuals (5666 regular, 3 night, 0 stationary, 0 feeder).

County Compiler: Will Cook, 418 Sharon Rd., Chapel Hill, NC, 27514. Participants: Barbara Beaman, Yvonne Becker, Nancy Buehler, Peter Burke, Chuck Byrd, Patrick Coin, Will Cook, Jefferson Dalby, Claudia Egelhoff, Maurice Graves, Perry Haaland, Bob Hale, Steve Hall, Willard Hartman, Walton Haywood, Chuck Helmick, Russell Herman, Loren Hintz, Fran Hommersand, Steve Kahler, John Kent, Roger Kohn, Kathy Kuyper, Barbara Logue, Terry Logue, Phil Manning, Melinda Meade, Lynn Milich, Judy Murray, Cathy Parker, Rick Payne, Franchesca Perez, Joanna Perkinson, Kevin Powell, Barbara Roth, Jim Samet, Doug Shadwick, Julia Shields, Jennifer Shoemaker, Ginger Travis, Anita Tyndall, Marta Wayne.

Cherokee County, NC. 0730 to 1630. Weather: temperature 30° predawn, 30° dawn, 45° AM, 55° noon, 65° PM, 55° dusk; wind none predawn, none dawn, 15 mph AM, 25 mph noon, 20 mph PM, 10 mph dusk; clouds none throughout the day; Precipitation: none throughout the day. Regular: 2 observers in 1 party; regular hours foot 7:00; regular hours car 2:00; regular miles foot 4.5; regular miles car 42. No Night (Owling) parties. No stationary parties. No feeder watchers. County summary: 9:00 party hours; 46.5 party miles, 2 participants.

Canada Goose 18, Wood Duck 1, Turkey Vulture 6, Red-tailed Hawk 1, Northern Bobwhite 2, Spotted Sandpiper 1, Rock Dove 3, Mourning Dove 14, Barred Owl 2, Chimney Swift 16, Ruby-throated Hummingbird 3, Belted Kingfisher 2, Red-bellied Woodpecker 2, Downy Woodpecker 1, Northern Flicker 4, Pileated Woodpecker 9, Eastern Phoebe 8, Eastern Kingbird 1, Purple Martin 24, Northern Rough-winged Swallow 11, Barn Swallow 12, Blue Jay 25, American Crow 47, Carolina Chickadee 7, Tufted Titmouse 12, White-breasted Nuthatch 2, Carolina Wren 27, Blue-gray Gnatcatcher 3, Eastern Bluebird 13, Gray-cheeked Thrush 1, Wood Thrush 4, American Robin 21, Gray Catbird 1, Northern Mockingbird 9, Brown Thrasher 27, European Starling 11, White-eyed Vireo 3, Blue-headed Vireo 2, Red-eyed Vireo 6, Blue-winged Warbler 2, Northern Parula 2, Chestnut-sided Warbler 1, Cape May Warbler 1, Pine Warbler 2, Black-and-white Warbler 2, American Redstart 2, Ovenbird 9, Kentucky Warbler 2, Hooded Warbler 12, Yellow-breasted Chat 11, Scarlet Tanager 4, Northern Cardinal 33, Rose-breasted Grosbeak 5, Indigo Bunting 41, Eastern Towhee 14, Chipping Sparrow 3, Field Sparrow 1, Song Sparrow 23, White-throated Sparrow 1, Red-winged Blackbird 7, Eastern Meadowlark 9, Common Grackle 6, Brown-headed Cowbird 8, Orchard Oriole 1, House Finch 6, American Goldfinch 9, House Sparrow 3.

Total: 67 species, 582 individuals (582 regular, 0 night, 0 stationary, 0 feeder).

County Compilers: Bill Bolte and Jan Bolte, Rt. 2, Box 175A, Murphy, NC 28906. Participants: Bill Bolte, Jan Bolte.

Cleveland County, NC. 0717 to 1404. Weather: temperature 46° predawn, 44° dawn, 52° AM, 59° noon, 62° PM, 59° dusk, 55° post-dusk; wind SSW 5 mph predawn, SSW 5 dawn, SSW 10 AM, SSW 15 noon, SSW 20 PM, SSW 12 dusk, SSW 5 post-dusk; clouds 10% predawn, 10% dawn, none the remainder of the day; precipitation: none throughout the day. Regular: 3 observers in 1 party; regular hours foot 3:46; regular hours car 2:53; regular miles foot 1; regular miles car 29. No night (owling) parties. No stationary parties. No feeder watchers. County summary: 6:39 party hours; 30 party miles, 3 participants.

Great Blue Heron 1, Canada Goose 2, Mallard 4, Blue-winged Teal 4, Black Vulture 4, Turkey Vulture 7, Red-shouldered Hawk 2, Red-tailed Hawk 6, Northern Bobwhite 6, Killdeer 6, Lesser Yellowlegs 2, Solitary Sandpiper 3, Spotted Sandpiper 1, Least Sandpiper 5, Rock Dove 3, Mourning Dove 40, Chimney Swift 35, Ruby-throated Hummingbird 1, Belted Kingfisher 1, Red-bellied Woodpecker 6, Downy Woodpecker 2, Northern Flicker 1, Eastern Wood-Pewee 6, Acadian Flycatcher 1; Eastern Phoebe 4, Great Crested Flycatcher 4, Eastern Kingbird 7, Horned Lark 2, Purple Martin 18, Northern Rough-winged Swallow 3, Barn Swallow 11, Blue Jay 19, American Crow 23, Carolina Chickadee 4, Tufted Titmouse 3, Brown-headed Nuthatch 2, Carolina Wren 6, House Wren 1, Blue-gray Gnatcatcher 3, Eastern Bluebird 34, American Robin 32, Gray Catbird 4, Northern Mockingbird 34, Brown Thrasher 18, Cedar Waxwing 3, Loggerhead Shrike 2, European Starling 50, Red-eyed Vireo 4, Yellow Warbler 1, Yellow-rumped Warbler 7, Pine Warbler 4, Blackpoll Warbler 3, Common Yellowthroat 7, Yellow-breasted Chat 2, Summer Tanager 1, Northern Cardinal 22, Blue Grosbeak 5, Indigo Bunting 14, Dickcissel 3, Eastern Towhee 3, Chipping Sparrow 13, Field Sparrow 4, Grasshopper Sparrow 4, Song Sparrow 6, Bobolink 5, Red-winged Blackbird

24, Eastern Meadowlark 11, Common Grackle 49, Brown-headed Cowbird 4, Orchard Oriole 3, House Finch 4, American Goldfinch 7, House Sparrow 5.

Total: 73 species, 651 individuals (651 regular, 0 night, 0 stationary, 0 feeder).

County Compiler: Jo Ann Martin, P.O. Box 242, Ellenboro, NC 28040. Participants: Jacquie Brunnick, Jo Ann Martin, Pat Wilkison.

Cumberland County, NC. 0600 to 2045. Weather not reported. Regular: 4 observers in 2 parties; regular hours foot 5:30; regular hours car 7:30; regular miles foot 4.5; regular miles car 135. Stationary: 1 observer in 1 party; stationary hours 1:30. No night (owling). No Feeder Watching. County summary: 12:45 party hours; 108 party miles, 2 participants.

Double-crested Cormorant 3, Great Blue Heron 7 (6 regular, 1 stationary), Cattle Egret 8, Green Heron 3, Canada Goose 52 (31 regular, 21 stationary), Wood Duck 4, American Black Duck 7, Mallard 4, Canvasback 2, Ruddy Duck 1, Turkey Vulture 10, Osprey 1, Northern Harrier 1, Red-shouldered Hawk 4, Red-tailed Hawk 5 (4 regular, 1 stationary), Northern Bobwhite 11, King Rail 1, American Coot 1, Semipalmated Plover 1, Killdeer 10 (9 regular, 1 stationary), Greater Yellowlegs 2, Lesser Yellowlegs 3, Solitary Sandpiper 9, Spotted Sandpiper 6 (5 regular, 1 stationary), Least Sandpiper 9, Common Snipe 1, Black Tern 1, Rock Dove 2, Mourning Dove 141 (137 regular, 4 stationary), Yellow-billed Cuckoo 1, Barred Owl 1, Chimney Swift 32 (30 regular, 2 stationary), Ruby-throated Hummingbird 4, Red-headed Woodpecker 1, Red-bellied Woodpecker 11 (9 regular, 2 stationary), Downy Woodpecker 4, Northern Flicker 5 (4 regular, 1 stationary), Pileated Woodpecker 3, Eastern Wood-Pewee 39, Acadian Flycatcher 4, Empidonax sp. 1, Great Crested Flycatcher 34 (33 regular, 1 stationary), Eastern Kingbird 25, Purple Martin 12, Northern Rough-winged Swallow 3, Barn Swallow 31 (30 regular, 1 stationary), Blue Jay 16 (14 regular, 2 stationary), American Crow 24 (23 regular, 1 stationary), Fish Crow 14 (12 regular, 2 stationary), crow sp. 33, Carolina Chickadee 8, Tufted Titmouse 36 (34 regular, 2 stationary), White-breasted Nuthatch 1, Brown-headed Nuthatch 5 (4 regular, 1 stationary), Carolina Wren 46 (45 regular, 1 stationary), Blue-gray Gnatcatcher 2, Eastern Bluebird 29, Wood Thrush 12, American Robin 25 (24 regular, 1 stationary), Gray Catbird 10 (9 regular, 1 stationary), Northern Mockingbird 67, Brown Thrasher 20, Cedar Waxwing 6, Loggerhead Shrike 1, European Starling 82, White-eyed Vireo 2, Yellow-throated Vireo 3, Red-eyed Vireo 17 (16 regular, 1 stationary), Northern Parula 1, Yellow Warbler 1, Yellow-rumped Warbler 5, Yellow-throated Warbler 6, Pine

Warbler 6, Prairie Warbler 4, American Redstart 1, Prothonotary Warbler 18, Swainson's Warbler 1, Ovenbird 1, Louisiana Waterthrush 2, Common Yellowthroat 22, Hooded Warbler 1, Summer Tanager 8, Scarlet Tanager 1, Northern Cardinal 49 (46 regular, 3 stationary), Blue Grosbeak 10, Indigo Bunting 34, Eastern Towhee 32 (31 regular, 1 stationary), Chipping Sparrow 5, Field Sparrow 1, Vesper Sparrow 1, Red-winged Blackbird 63, Eastern Meadowlark 8, Common Grackle 139 (127 regular, 12 stationary), Brown-headed Cowbird 10, Orchard Oriole 8, House Finch 5, American Goldfinch 2, House Sparrow 35.

Total: 96 species, 1439 individuals (1369 regular, 0 night, 70 stationary, 0 feeder).

County Compiler: Philip J. Crutchfield, 5559 Hedrick Dr., Fayetteville, NC 28303. Participants: Philip Crutchfield, Louis Pulsipher, Susan Pulsipher, Morris Whitfield.

Forsyth County, NC. 1630 to 1700. Weather not reported. No regular parties; No night (owling) parties. No stationary parties. Feeder Watchers: 2 observers watching 8 feeding stations; feeder watching hours 0:30. County summary: 0:30 party hours; 2 participants.

Blue Jay 2, Carolina Chickadee 5, Tufted Titmouse 2, Carolina Wren 3, Brown Thrasher 1, Northern Cardinal 11, Rose-breasted Grosbeak 2, Blue Grosbeak 1, Indigo Bunting 4, Eastern Towhee 2, Field Sparrow 2, House Finch 6, American Goldfinch 10.

Total: 13 species, 51 individuals (0 regular, 0 night, 0 stationary, 51 feeder).

County Compiler: Dennis Burnette, 44209 Bramlet Pl., Greensboro, NC 27407. Participants: Dolores Foutch, Wally Foutch.

Guilford County, NC. 0300 to 2000. Weather: temperature 45° predawn, 43° dawn, 55° AM, 60° noon, 64° PM, 60° dusk; wind N 7 mph AM, N 15 mph AM, NNE 20 mph, gusts to 60 mph noon, N 15 mph PM, N 9 dusk; clouds 40% predawn, 30% dawn, 20% AM, none remainder of the day; precipitation: none. Regular: 24 observers in 12 parties; regular hours foot 61:15; regular hours car 40:45; regular miles foot 43; regular miles car 445.7. Night (Owling): 5 observers in 2 parties; night hours 3:45, night miles 84. Stationary: 6 observers in 2 parties; stationary hours 5:00. Feeder Watchers: 4 observers watching 10 feeding stations; feeder watching hours 18:30. County summary: 129:15 party hours; 572.7 party miles, 31 participants.

Double-crested Cormorant 51, Great Blue Heron 11, Green Heron 13, Yellow-crowned Night Heron 5, Canada Goose 491 (488 regular, 3 feeder), Wood Duck 22, Mallard 203 (200 regular, 3 feeder), Blue-winged Teal 4, Ruddy Duck 1, Black Vulture 23, Turkey Vulture 58, Osprey 3, Bald Eagle 3 (2 adult, 1 immature), Cooper's Hawk 5, Red-shouldered Hawk 14, Broad-winged Hawk 4, Red-tailed Hawk 22, Ruffed Grouse 1, Northern Bobwhite 5, American Coot 1, Killdeer 31, Solitary Sandpiper 4, Spotted Sandpiper 36, Least Sandpiper 4, Ring-billed Gull 118, Rock Dove 36, Mourning Dove 332 (305 regular, 19 stationary, 6 feeder, 2 night), Common Nighthawk 6, Chimney Swift 320, Ruby-throated Hummingbird 12 (9 regular, 3 feeder), Belted Kingfisher 13, Red-headed Woodpecker 5, Red-bellied Woodpecker 52 (50 regular, 1 stationary, 1 feeder), Downy Woodpecker 25, Hairy Woodpecker 3, Northern Flicker 18 (17 regular, 1 feeder), Pileated Woodpecker 1, Eastern Wood-Pewee 7, Acadian Flycatcher 3, Empidonax sp. 2, Eastern Phoebe 32, Great Crested Flycatcher 20 (19 regular, 1 stationary), Eastern Kingbird 46, Horned Lark 27, Purple Martin 126, Tree Swallow 18, Northern Rough-winged Swallow 222, Bank Swallow 161, Cliff Swallow 13, Barn Swallow 209, Blue Jay 176 (173 regular, 2 stationary, 1 feeder), American Crow 265 (254 regular, 11 stationary), Fish Crow 11, Carolina Chickadee 161 (152 regular, 2 stationary, 7 feeder), Tufted Titmouse 120 (109 regular, 2 stationary, 9 feeder), White-breasted Nuthatch 19, Brown-headed Nuthatch 12 (11 regular, 1 night), Carolina Wren 116 (114 regular, 2 stationary), House Wren 8, Ruby-crowned Kinglet 1, Blue-gray Gnatcatcher 51, Eastern Bluebird 199 (194 regular, 5 feeder), Veery 1, Gray-cheeked Thrush 2, Swainson's Thrush 9, Wood Thrush 46, American Robin 533 (525 regular, 3 stationary, 3 feeder, 2 night), Gray Catbird 36, Northern Mockingbird 152 (148 regular, 1 stationary, 1 feeder, 2 night), Brown Thrasher 51 (50 regular, 1 feeder), Cedar Waxwing 175 (135 regular, 40 stationary), European Starling 462 (459 regular, 3 feeder), White-eyed Vireo 2, Yellow-throated Vireo 1, Red-eyed Vireo 158, Northern Parula 13, Yellow Warbler 6, Chestnut-sided Warbler 5, Magnolia Warbler 3, Cape May Warbler 2 (stationary), Black-throated Blue Warbler 26 (25 regular, 1 stationary), Yellow-rumped Warbler 57, Black-throated Green Warbler 2, Yellow-throated Warbler 2, Pine Warbler 29, Prairie Warbler 4, Bay-breasted Warbler 5, Blackpoll Warbler 5, Black-and-white Warbler 3, American Redstart 22, Ovenbird 10, Louisiana Waterthrush 1, Common Yellowthroat 49, Yellow-breasted Chat 10, Summer Tanager 6, Scarlet Tanager 14, Northern Cardinal 285 (267 regular, 3 stationary, 14 feeder, 1 night), Rose-breasted Grosbeak 2, Blue Grosbeak 21 (19 regular, 2 feeder), Indigo Bunting 92 (87 regular, 1 stationary, 4 feeder), Eastern Towhee 65 (64 regular, 1 feeder), Chipping Sparrow 59, Field Sparrow 25, Savannah Sparrow 2, Grasshopper Sparrow 6, Song Sparrow 56 (48 regular, 6 stationary, 1 feeder, 1 night), Swamp Sparrow 1, White-throated Sparrow 4, Bobolink 28, Red-winged Blackbird 99, Eastern Meadowlark 46, Common Grackle 527 (514 regular, 5 stationary, 6 feeder, 2 night), Brown-headed Cowbird 48, Orchard Oriole 3, Baltimore Oriole 5, House Finch 126 (97 regular, 14 stationary, 15 feeder), American Goldfinch 243 (218 regular, 15 stationary, 10 feeder), House Sparrow 36.

Total: 118 species, 7662 individuals (7420 regular, 131 stationary, 100 feeder, 11 night).

County Compiler: Dennis E. Burnette, 4209 Bramlet Place, Greensboro, NC 27407. Participants: Carolyn Allen, Don Allen, Jewell Burdell, Dennis Burnette, Lynn Burnette, Charlie Campbell, Phil Crisp, Scott DePue, Grace Draper, Peggy Ferebee, Dolores Foutch, Wally Foutch, Larry Gasper, Herb Hendrickson, Sally Howell, Mildred Kallenbach, Dorothy Lash, Elizabeth Link, Henry Link, Jean McCoy, Dorothy Mestik, Lynn Moseley, Soni Read, Danny Royster, Laurie Sorrell, Will Sorrell, Henry Strickland, Weslyn Strickland, Emily Tyler, Judie Underkoffler, Calvin Weimer, Susan Weimer.

Henderson County, NC. 0700 to 1800. Weather: temperature 36° predawn, 38° dawn, 45° AM, 55° noon, 55° PM, 50° dusk, 48° post-dusk; wind N 10 mph dawn, 10-15 mph AM, 10-15 mph noon, 10-15 mph PM; clouds none; precipitation: none. Regular: 40 observers in 12 parties; regular hours foot 56:00; regular hours car 29:30; regular miles foot 34.75; regular miles car 209. No night (owling) parties. No stationary parties. No feeder watchers. County summary: 85 party hours; 243.75 party miles, 40 participants.

Green Heron 5, Canada Goose 50, Wood Duck 8, Mallard 55, Black Vulture 15, Turkey Vulture 41, Northern Harrier 1, Broad-winged Hawk 2, Red-tailed Hawk 7, American Kestrel 2, Wild Turkey 2, Northern Bobwhite 1, Sora 1, American Coot 1, Killdeer 8, Lesser Yellowlegs 5, Solitary Sandpiper 12, Spotted Sandpiper 3, Least Sandpiper 3, Pectoral Sandpiper 12, Rock Dove 8, Mourning Dove 60, Eastern Screech Owl 1, Common Nighthawk 5, Chimney Swift 118, Ruby-throated Hummingbird 10, Belted Kingfisher 3, Red-headed Woodpecker 1, Red-bellied Woodpecker 17, Downy Woodpecker 15, Hairy Woodpecker 2, Northern Flicker 15, Pileated Woodpecker 10, Eastern Wood-Pewee 9, Acadian Flycatcher 5, Willow Flycatcher 2, Least Flycatcher 1, Eastern Phoebe 24, Great Crested Flycatcher 13, Eastern Kingbird 3, Purple Martin 5, Tree Swallow 12, Northern

Rough-winged Swallow 86, Bank Swallow 3, Cliff Swallow 1, Barn Swallow 236, Blue Jay 72, American Crow 160, Carolina Chickadee 57, Tufted Titmouse 56, White-breasted Nuthatch 7, Carolina Wren 56, House Wren 7, Ruby-crowned Kinglet 2, Blue-gray Gnatcatcher 30, Eastern Bluebird 41, Veery 1, Swainson's Thrush 1, Wood Thrush 13, American Robin 197, Gray Catbird 36, Northern Mockingbird 36, Brown Thrasher 28, Cedar Waxwing 23, European Starling 142, White-eyed Vireo 9, Blue-headed Vireo 11, Yellow-throated Vireo 4, Philadelphia Vireo 1, Red-eyed Vireo 44, Northern Parula 17, Yellow Warbler 10, Chestnut-sided Warbler 20, Magnolia Warbler 2, Black-throated Blue Warbler 8, Yellow-rumped Warbler 30, Black-throated Green Warbler 10, Blackburnian Warbler 1, Yellow-throated Warbler 3, Pine Warbler 1, Prairie Warbler 2, Palm Warbler 3, Blackpoll Warbler 43, Black-and-white Warbler 13, American Redstart 52, Ovenbird 4, Northern Waterthrush 13, Louisiana Waterthrush 2, Kentucky Warbler 2, Common Yellowthroat 26, Hooded Warbler 11, Canada Warbler 1, Yellow-breasted Chat 3, Scarlet Tanager 10, Northern Cardinal 79, Rose-breasted Grosbeak 3, Blue Grosbeak 2, Indigo Bunting 57, Eastern Towhee 103, Chipping Sparrow 16, Field Sparrow 6, Song Sparrow 136, Swamp Sparrow 1, White-throated Sparrow 3, White-crowned Sparrow 2, Dark-eyed Junco 6, Bobolink 1, Red-winged Blackbird 96, Eastern Meadowlark 19, Rusty Blackbird 2, Common Grackle 111, Brown-headed Cowbird 13, House Finch 31, American Goldfinch 60, House Sparrow 16.

Total: 115 species, 2948 individuals (2948 regular, 0 night, 0 stationary, 0 feeder).

County Compiler: Simon R. B. Thompson, P.O. Box 1095, Skyland, NC 28776. Participants: Brenda Ashe, Lamar Ashe, Alvin Barnwell, Dee Boucher, Kathleen Carpenter, Susan Daugherty, Tom Driscoll, Larry Farer, Wayne Forsythe, Peggy Franklin, Charlotte Goedsche, Rick Hensley, John LoCurto, Barbara Neal, Jim Neal, Frances Ogasawara, Anne Ulinski, Ellen Weigley, Ira Weigley, Marilyn Westphal, Jennifer Wren (plus 18 additional people not listed).

Jones County, NC. 0610 to 2130. Weather: temperature 47° predawn, 63° noon, 54° dusk; wind none predawn, NW 0-1 mph dawn, NW 10 mph AM, NW 10-15 noon, NW 15-20 PM, NW 10-15 dusk, NW 10 post-dusk; clouds "very few"; precipitation none. Regular: 5 observers in 2 parties; regular hours foot 8:00; regular hours car 1:00; regular miles foot 4; regular miles car 26. Night (Owling): 1 observer in 1 party; night hours 1:00; night miles 2. No stationary parties. Feeder watching: 1 observer watching 2 feeding stations;

feeder watching hours 1:00. County summary: 11:00 party hours; 30 party miles, 5 participants.

Pied-billed Grebe 2, Least Bittern 2, Great Blue Heron 1 Little Blue Heron 1, Green Heron 3, Black-crowned Night-Heron 1, Yellow-crowned Night-Heron 3, Canada Goose 10, Wood Duck 20, Mallard 8, Turkey Vulture 6, Red-shouldered Hawk 7, Red-tailed Hawk 1, Wild Turkey 7, Northern Bobwhite 1, Killdeer 5, Spotted Sandpiper 1, Rock Dove 2, Mourning Dove 50, Yellow-billed Cuckoo 2, Great Horned Owl 1, Barred Owl 4, Whip-poor-will 1, Chimney Swift 5, Ruby-throated Hummingbird 6, Belted Kingfisher 1, Red-bellied Woodpecker 6, Downy Woodpecker 5, Hairy Woodpecker 1, Northern Flicker 2, Pileated Woodpecker 3, Eastern Wood-Pewee 4, Acadian Flycatcher 18, Empidonax sp. 1, Eastern Phoebe 2, Great Crested Flycatcher 20, Eastern Kingbird 3, Horned Lark 3, Purple Martin 6, Northern Rough-winged Swallow 8, Barn Swallow 25, Blue Jay 1, American Crow 8, Fish Crow 4, Carolina Chickadee 3, Tufted Titmouse 7, Carolina Wren 5, Blue-gray Gnatcatcher 20, Eastern Bluebird 8, Wood Thrush 2, American Robin 2, Gray Catbird 2, Northern Mockingbird 6, Brown Thrasher 1, European Starling 2, White-eyed Vireo 19, Yellow-throated Vireo 3, Red-eyed Vireo 25, Northern Parula 28, Yellow Warbler 3, Black-throated Blue Warbler 2, Yellow-throated Warbler 5, Pine Warbler 9, Prairie Warbler 3, Black-and-white Warbler 2, American Redstart 2, Prothonotary Warbler 18, Worm-eating Warbler 5, Swainson's Warbler 2, Ovenbird 8, Louisiana Waterthrush 1, Kentucky Warbler 3, Common Yellowthroat 13, Hooded Warbler 2, Yellow-breasted Chat 12, Summer Tanager 5, Northern Cardinal 16, Rose-breasted Grosbeak 2, Blue Grosbeak 14, Indigo Bunting 8, Eastern Towhee 10, Chipping Sparrow 5, Field Sparrow 2, White-throated Sparrow 1, Red-winged Blackbird 4, Eastern Meadowlark 2, Common Grackle 40, Brown-headed Cowbird 25, Orchard Oriole 8, Baltimore Oriole 3, American Goldfinch 20, House Sparrow 1.

Total: 92 species, 715 individuals (715 regular, 0 night, 0 stationary, 0 feeder).

County Compiler: C.E. Ballenger III, 1001 Otrento Rd., Trenton, NC 28585. Participants: C.E. Ballenger III, Marian D. Ballenger, Bob Holmes, Jimi Moore, Nell Moore.

Macon County, NC. (Pilot year; standardized checklist not used.) Times not reported. Weather: "Very cold, windy, wet..." Over 60 observers, number of parties not reported; hours and miles not reported. Pied-billed Grebe, Mute Swan, Canada Goose, Wood Duck, Mallard, Black Vulture, Turkey Vulture, Osprey, Broad-winged Hawk 1, Peregrine Falcon, Ruffed Grouse, Wild Turkey, Solitary Sandpiper, Spotted Sandpiper, Mourning Dove, Ruby-throated Hummingbird, Belted Kingfisher, Red-headed Woodpecker, Downy Woodpecker, Hairy Woodpecker, Northern Flicker, Pileated Woodpecker, Eastern Wood-Pewee, Eastern Phoebe, Northern Rough-winged Swallow, Barn Swallow, Blue Jay, American Crow, Carolina Chickadee, Tufted Titmouse, Red-breasted Nuthatch, White-breasted Nuthatch, Carolina Wren, Ruby-crowned Kinglet, Blue-gray Gnatcatcher, Eastern Bluebird, Wood Thrush, American Robin, Gray Catbird, Northern Mockingbird, Brown Thrasher, European Starling, White-eyed Vireo, Blue-headed Vireo, Yellow-throated Vireo, Red-eyed Vireo, Northern Parula, Chestnut-sided Warbler, Magnolia Warbler, Black-throated Blue Warbler, Yellow-rumped Warbler, Prairie Warbler, Palm Warbler, Black-and-white Warbler, Ovenbird, Hooded Warbler, Northern Cardinal, Rose-breasted Grosbeak, Blue Grosbeak, Indigo Bunting, Eastern Towhee, Chipping Sparrow, Fox Sparrow, Song Sparrow, Dark-eyed Junco, Red-winged Blackbird, Eastern Meadowlark, Common Grackle, Brown-headed Cowbird, Baltimore Oriole, Purple Finch, House Finch, Pine Siskin, American Goldfinch.

Total: 74 species, individuals not reported.

County Compiler: Thomas O. Rusert, Highlands Plateau Audubon Society, P.O. Box 689, Highlands, NC 28741. Participants: Not recorded.

Moore County, NC. 0500 to 1900. Weather: temperature 52° predawn, 52° dawn, 55° AM, 59° noon, 64° PM, 61° dusk, 54° post-dusk; wind NW 10 mph predawn, NW 6 mph dawn, WNW 20 AM, NW 8 noon, NW 14 mph PM, N 3 mph dusk, NNE 8 post-dusk; clouds none predawn, 20% dawn, none AM, none noon, 10% PM, none dusk, none post-dusk; precipitation none throughout the day. Regular: 10 observers in 7 parties; regular hours foot 24:00; regular hours car 14:00; regular miles foot 26; regular miles car 168. Night (Owling): 3 observers in 2 parties; night hours 2:00; night miles 0. No stationary parties. Feeder Watchers: 8 observers watching 5 feeding stations; feeder watching hours 26:00. County summary: 66 party hours; 260 party miles, 18 participants.

Pied-billed Grebe 1, Double-crested Cormorant 2, Green Heron 2, Mute Swan 2, Canada Goose 20, Wood Duck 6, Mallard 24, Red-breasted Merganser 3, Ruddy Duck 3, Black Vulture 2, Turkey Vulture 15, Sharp-shinned Hawk 1, Cooper's Hawk 1, Red-shouldered Hawk 4, Broad-winged Hawk 1, Red-tailed Hawk 6, Merlin 1, Northern Bobwhite 9, American Coot 17, Killdeer 9, Spotted Sandpiper 4, Ring-billed Gull 1, Rock

Dove 2, Mourning Dove 81 (63 regular, 18 feeder), Yellow-billed Cuckoo 2, Barred Owl 3, Chuck-Will's-Widow 3, Whip-poor-will 2, Chimney Swift 24, Ruby-throated Hummingbird 6 (3 regular, 3 feeder), Belted Kingfisher 2, Red-headed Woodpecker 9 (7 regular, 2 feeder), Red-bellied Woodpecker 10 (8 regular, 2 feeder), Downy Woodpecker 8 (6 regular, 2 feeder), Hairy Woodpecker 1, Red-cockaded Woodpecker 3, Northern Flicker 9 (7 regular, 2 feeder), Pileated Woodpecker 1, Eastern Wood-Pewee 8, Acadian Flycatcher 3, Eastern Phoebe 2, Great Crested Flycatcher 38, Eastern Kingbird 19, Horned Lark 2, Purple Martin 37, Northern Rough-winged Swallow 11, Barn Swallow 32, Blue Jay 50 (33 regular, 17 feeder), American Crow 43 (41 regular, 2 feeder), Fish Crow 8, Carolina Chickadee 19 (13 regular, 6 feeder), Tufted Titmouse 29 (23 regular, 6 feeder), White-breasted Nuthatch 3, Brown-headed Nuthatch 10, Carolina Wren 17 (15 regular, 2 feeder), House Wren 1, Blue-gray Gnatcatcher 18, Eastern Bluebird 51 (49 regular, 2 feeder), Veery 1, Hermit Thrush 3 (2 regular, 1 feeder), Wood Thrush 21 (18 regular, 3 feeder), American Robin 35 (20 regular, 15 feeder), Gray Catbird 17 (15 regular, 2 feeder), Northern Mockingbird 37 (35 regular, 2 feeder), Brown Thrasher 22 (17 regular, 5 feeder), Cedar Waxwing 7, Loggerhead Shrike 3, European Starling 16, White-eyed Vireo 8, Blue-headed Vireo 2, Yellow-throated Vireo 3, Red-eyed Vireo 24, Northern Parula 6, Yellow Warbler 1, Magnolia Warbler 1, Black-throated Blue Warbler 8, Yellow-rumped Warbler 7, Yellow-throated Warbler 8, Pine Warbler 18, Prairie Warbler 3, Black-and-white Warbler 7, American Redstart 11, Prothonotary Warbler 5, Ovenbird 9, Northern Waterthrush 3, Louisiana Waterthrush 3, Kentucky Warbler 2, Common Yellowthroat 12, Hooded Warbler 5, Wilson's Warbler 1, Canada Warbler 1, Yellow-breasted Chat 1, Summer Tanager 12, Scarlet Tanager 2, Northern Cardinal 71 (58 regular, 13 feeder), Rose-breasted Grosbeak 4, Blue Grosbeak 4, Indigo Bunting 11 (10 regular, 1 feeder), Eastern Towhee 39 (34 regular, 5 feeder), Chipping Sparrow 25 (24 regular, 1 feeder), Field Sparrow 3 (2 regular, 1 feeder), Song Sparrow 1, White-throated Sparrow 3 (1 regular, 2 feeder), Red-winged Blackbird 38 (36 regular, 2 feeder), Eastern Meadowlark 8, Common Grackle 80 (68 regular, 12 feeder), Brown-headed Cowbird 19, Orchard Oriole 1, Baltimore Oriole 1, House Finch 28 (14 regular, 14 feeder), American Goldfinch 37 (22 regular, 15 feeder), House Sparrow 3 (2 regular, 1 feeder).

Total: 112 species, 1402 individuals (1243 regular, 0 night, 0 stationary, 159 feeder).

County Compiler: Elizabeth Watson, 104 Rob Roy Road, Southern Pines, NC 28387. Participants: Linda Alderman, Earle Anderson, Eleanor Anderson, Dick Burk, Bryce Fleming, Mac Goodwin, Scott Hartley, Pat Hoffman, Bob Johnson, Laura Johnson, Suzanne Johnson, Anne Kelly, John Kelly, Sean Kelly, Billy McKenzie, George Rainoff, Libba Watson, Ted York.

Pitt County, NC. 0530 to 1630. Weather: temperature 50° dawn, "breezy, cool, sunny" AM, 62° PM; wind 5 mph dawn, 12 mph PM; clouds 20% AM, 50% "partly cloudy" PM; precipitation not reported. Regular: 6 observers in 2 parties; regular hours foot 8:00; regular hours car 10:00; regular miles foot not reported; regular miles car 175. Night (owling): 5 observers in 1 party; night hours 0:30, night miles 1. County summary: 18:30 party hours; 176 party miles, 6 participants.

Double-crested Cormorant 98, Great Blue Heron 3, Great Egret 4, Cattle Egret 53, Green Heron 1, Canada Goose 49, Wood Duck 120, Mallard 12, Black Vulture 2, Turkey Vulture 37, Osprey 2, Bald Eagle 3, Red-shouldered Hawk 6, Broad-winged Hawk 1, Red-tailed Hawk 10, Northern Bobwhite 17, Semipalmated Plover 2, Killdeer 10, Greater Yellowlegs 4, Lesser Yellowlegs 37, Solitary Sandpiper 3, Spotted Sandpiper 7, Semipalmated Sandpiper 2, Least Sandpiper 40, White-rumped Sandpiper 2, Pectoral Sandpiper 6, Stilt Sandpiper 1, Ring-billed Gull 5, Forster's Tern 2, Least Tern 8, Rock Dove 2, Mourning Dove 69, Yellow-billed Cuckoo 4, Great Horned Owl 1, Barred Owl 4, Common Nighthawk 2, Chuck-Will's-Widow 3, Whip-poor-will 1, Chimney Swift 53, Ruby-throated Hummingbird 5, Belted Kingfisher 3, Red-headed Woodpecker 1, Red-bellied Woodpecker 14, Downy Woodpecker 9, Northern Flicker 3, Pileated Woodpecker 4, Eastern Wood-Pewee 17, Acadian Flycatcher 27, Eastern Phoebe 2, Great Crested Flycatcher 45, Eastern Kingbird 12, Purple Martin 49, Tree Swallow 27, Northern Rough-winged Swallow 27, Bank Swallow 4, Barn Swallow 57, Blue Jay 3, American Crow 40, Fish Crow 16, Carolina Chickadee 26, Tufted Titmouse 23, White-breasted Nuthatch 3, Carolina Wren 32, Blue-gray Gnatcatcher 36, Eastern Bluebird 44, Veery 4, Gray-cheeked Thrush 1, Swainson's Thrush 5, Wood Thrush 40, American Robin 42, Gray Catbird 2, Northern Mockingbird 17, Brown Thrasher 11, Cedar Waxwing 10, Loggerhead Shrike 1, European Starling 223, White-eyed Vireo 17, Yellow-throated Vireo 4, Red-eyed Vireo 49, Northern Parula 23, Yellow Warbler 2, Black-throated Blue Warbler 6, Yellow-throated Warbler 7, Pine Warbler 8, Prairie Warbler 2, Blackpoll Warbler 3, Black-and-white Warbler 11, American Redstart 11, Prothonotary Warbler 12, Worm-eating Warbler 4, Swainson's Warbler 2, Ovenbird 27, Louisiana Waterthrush 6, Kentucky Warbler 3, Common Yellowthroat 27, Hooded Warbler 4, Yellow-breasted Chat 7, Summer Tanager 15, Scarlet Tanager 5, Northern Cardinal 26, Rose-breasted Grosbeak 1, Blue Grosbeak

25, Indigo Bunting 70, Eastern Towhee 12, Chipping Sparrow 10, Field Sparrow 7, Grasshopper Sparrow 24, Henslow's Sparrow 4, Bobolink 12, Red-winged Blackbird 22, Eastern Meadowlark 36, Common Grackle 52, Brown-headed Cowbird 10, Orchard Oriole 10, House Finch 12, American Goldfinch 9, House Sparrow 24.

Total: 117 species, 2197 individuals (2197 regular, 0 night, 0 stationary, 0 feeder).

County Compiler: John S. Wright, 1953-A Quail Ridge Rd., Greenville, NC 27858. Participants: Brad Carlson, Rosalyn Mullins, Jodi Nicholson, Jim Ward, John Wright, Paula Wright.

Polk County, NC. 0600 to 1630. Weather: temperature 50° predawn, 52° dawn, 53° AM, 60° noon, 65° PM, 62° dusk, 58° post-dusk; wind none predawn, none dawn, N 10 mph AM, N 10 mph noon, N 15 mph PM, N 15 mph dusk, N 15 mph post-dusk; clouds 5% predawn, 5% dawn, 5% AM, clear remainder of the day; precipitation: none. Regular: 6 observers in 4 parties; regular hours foot 5:00; regular hours car 10:00; regular miles foot 4; regular miles car 52.25. No night (owling) parties. No stationary parties. No feeder watchers. County summary: 15 party hours; 56.15 party miles, 6 participants.

Green Heron 2, Canada Goose 53, Wood Duck 4, Black Vulture 1, Turkey Vulture 24, Cooper's Hawk 2, Red-shouldered Hawk 2, Broad-winged Hawk 2, Red-tailed Hawk 3, Killdeer 6, Solitary Sandpiper 2, Spotted Sandpiper 2, Least Sandpiper 2, Rock Dove 2, Mourning Dove 25, Yellow-billed Cuckoo 1, Chimney Swift 59, Ruby-throated Hummingbird 5, Belted Kingfisher 2, Red-bellied Woodpecker 8, Downy Woodpecker 5, Northern Flicker 1, Pileated Woodpecker 4, Eastern Wood-Pewee 4, Eastern Phoebe 22, Great Crested Flycatcher 2, Eastern Kingbird 5, Horned Lark 2, Purple Martin 8, Tree Swallow 2, Northern Rough-winged Swallow 20, Bank Swallow 10, Cliff Swallow 1, Barn Swallow 57, Blue Jay 12, American Crow 43, Carolina Chickadee 18, Tufted Titmouse 20, Brown-headed Nuthatch 2, Carolina Wren 30, Blue-gray Gnatcatcher 14, Eastern Bluebird 29, Veery 1, Gray-cheeked Thrush 1, Swainson's Thrush 1, Wood Thrush 6, American Robin 29, Gray Catbird 10, Northern Mockingbird 15, Brown Thrasher 14, Cedar Waxwing 80, European Starling 16, White-eyed Vireo 1, Blue-headed Vireo 1, Yellow-throated Vireo 8, Red-eyed Vireo 37, Tennessee Warbler 1, Northern Parula 2, Yellow Warbler 1, Cape May Warbler 10, Black-throated Blue Warbler 6, Yellow-rumped Warbler 23, Blackburnian Warbler 3, Yellow-throated Warbler 3, Pine Warbler 7, Blackpoll Warbler 6, Cerulean Warbler 1, Black-and-white Warbler 4, American Redstart 25, Worm-eating

Warbler 3, Ovenbird 1, Northern Waterthrush 2, Kentucky Warbler 13, Common Yellowthroat 26, Hooded Warbler 8, Canada Warbler 1, Yellow-breasted Chat 4, Summer Tanager 2, Scarlet Tanager 16, Northern Cardinal 42, Rose-breasted Grosbeak 8, Blue Grosbeak 4, Indigo Bunting 50, Eastern Towhee 6, Chipping Sparrow 9, Savannah Sparrow 1, Grasshopper Sparrow 1, Song Sparrow 14, White-throated Sparrow 2, Bobolink 123, Red-winged Blackbird 18, Eastern Meadowlark 14, Common Grackle 19, Brown-headed Cowbird 8, Orchard Oriole 6, Baltimore Oriole 7, House Finch 24, American Goldfinch 85, House Sparrow 5.

Total: 99 species, 1329 individuals (1329 regular, 0 night, 0 stationary, 0 feeder).

County Compiler: Simon R. B. Thompson, P.O. Box 1095, Skyland, NC 28776. Participants: Maryneal Jones, Lillian Kaspar, Robert McSherry, Simon Thompson.

Randolph County, NC. 0515 to 1900. Weather: temperature 54° predawn, 54° dawn, 58° AM, 60° noon, 65° PM, 64° dusk, 60° post-dusk; wind W 20 mph predawn, W 20 mph dawn, W 20 mph AM, W 20 mph noon, W 20 mph PM, W 10 dusk, W 5 post-dusk; clouds 25% predawn, 20% dawn, 20% AM, 20% noon, 15% PM, 10% dusk, 5% post-dusk; precipitation: none. Regular: 5 observers in 2 parties; regular hours foot 6:00; regular hours car 8:00; regular miles foot 5; regular miles car 70. Night (owling): 1 observer in 1 party; night hours 1; night miles 0. No stationary parties. No feeder watchers. County summary: 15:00 party hours; 75 party miles, 5 participants.

Canada Goose 50, Mallard 2, Black Vulture 7, Turkey Vulture 14, Sharp-shinned Hawk 1, Broad-winged Hawk 2, Red-tailed Hawk 3, Northern Bobwhite 6, American Coot 1, Killdeer 8, Mourning Dove 50, Chuck-Wills-Widow 1 (night), Chimney Swift 64, Ruby-throated Hummingbird 4, Red-bellied Woodpecker 3, Downy Woodpecker 1, Northern Flicker 2, Pileated Woodpecker 1, Eastern Phoebe 1, Great Crested Flycatcher 1, Eastern Kingbird 2, Purple Martin 2, Barn Swallow 17, Blue Jay 7, American Crow 20, Carolina Chickadee 7, Tufted Titmouse 6, Carolina Wren 10, Blue-gray Gnatcatcher 6, Eastern Bluebird 38, Wood Thrush 6, American Robin 103, Northern Mockingbird 28, Brown Thrasher 3, Loggerhead Shrike 1, European Starling 68, Red-eyed Vireo 10, Northern Parula 3, Yellow Warbler 1, Black-throated Blue Warbler 1, Yellow-rumped Warbler 6, Black-throated Green Warbler 1, Yellow-throated Warbler 1, Pine Warbler 7, Prairie Warbler 1, Bay-breasted Warbler 1, Common Yellowthroat 4, Hooded Warbler 1, Yellow-breasted Chat 3, Summer Tanager 3, Scarlet Tanager 5, Northern Cardinal 30, Blue Grosbeak 9, Indigo Bunting 13, Eastern Towhee 9, Chipping Sparrow 7, Field Sparrow 6, Grasshopper Sparrow 3, Song Sparrow 5, Red-winged Blackbird 22, Eastern Meadowlark 11, Common Grackle 86, Brown-headed Cowbird 4, House Finch 23, American Goldfinch 6, House Sparrow 10.

Total: 65 species, 838 individuals (837 regular, 1 night, 0 stationary, 0 feeder).

County Compiler: Dennis Burnette, 4209 Bramlet Place, Greensboro, NC, 27407. Participants: Dennis Burnette, Dolores Foutch, Wally Foutch, Clarence Mattocks, James Mattocks.

Transylvania County, NC. 0500 to 2100. Weather: temperature 30° predawn, 54° noon, 40° post-dusk ("temperatures at higher elevations never exceeded 35°"); wind 20+ mph ("strong gusty winds all day"); clouds none; precipitation none. Regular: 32 observers in 14 parties; regular hours foot 23:00; regular hours car 62:00; regular miles foot 26; regular miles car 385. Night (owling): 1 observer in 1 party; night hours 2; night miles 0. No stationary parties. Feeder Watchers: 11 feeder watchers observing 11 feeding stations; feeder watching hours 45:00. County summary: 132 party hours; 411 party miles; 45 participants.

Pied-billed Grebe 2, Great Blue Heron 2, Canada Goose 49, Wood Duck 3, Mallard 19, Black Vulture 4, Turkey Vulture 54, Northern Harrier 2, Sharp-shinned Hawk 1, Red-shouldered Hawk 2, Broad-winged Hawk 5, Red-tailed Hawk 2, American Kestrel 1, Wild Turkey 4, Northern Bobwhite 2, Sora 1, Killdeer 1, Solitary Sandpiper 1, Spotted Sandpiper 9, Rock Dove 2, Mourning Dove 131 (108 regular, 23 feeder), Eastern Screech-Owl 2 (1 regular, 1 night), Barred Owl 1 (night), Whip-poor-will 1 (night), Chimney Swift 40, Ruby-throated Hummingbird 30 (20 regular, 10 feeder), Belted Kingfisher 4, Red-headed Woodpecker 1 (feeder), Red-bellied Woodpecker 12 (8 regular, 4 feeder), Downy Woodpecker 20 (15 regular, 5 feeder), Hairy Woodpecker 2 (feeder), Northern Flicker 15 (13 regular, 2 feeder), Pileated Woodpecker 31 (24 regular, 7 feeder), Eastern Wood-Pewee 2, Acadian Flycatcher 5, Eastern Phoebe 60 (59 regular, 1 feeder), Great Crested Flycatcher 11, Eastern Kingbird 16, Northern Rough-winged Swallow 67, Barn Swallow 166, Blue Jay 97 (72 regular, 25 feeder), American Crow 314 (287 regular, 27 feeder), Common Raven 3, Black-capped Chickadee 1, Carolina Chickadee 130 (109 regular, 21 feeder), Tufted Titmouse 136 (112 regular, 24 feeder), White-breasted Nuthatch 23 (16 regular, 7 feeder), Brown Creeper 1, Carolina Wren 48 (41 regular, 7 feeder), House Wren 11, Winter

Wren 2, Golden-crowned Kinglet 2, Blue-gray Gnatcatcher 7, Eastern Bluebird 67 (59 regular, 8 feeder), Swainson's Thrush 1, Wood Thrush 18, American Robin 219 (210 regular, 9 feeder), Gray Catbird 33 (32 regular, 1 feeder), Northern Mockingbird 11, Brown Thrasher 39 (36 regular, 3 feeder), Cedar Waxwing 2, European Starling 82 (78 regular, 4 feeder), White-eyed Vireo 6, Blue-headed Vireo 17, Yellow-throated Vireo 1, Philadelphia Vireo 1, Red-eyed Vireo 49, Northern Parula 39, Yellow Warbler 9, Chestnut-sided Warbler 31, Cape May Warbler 1, Black-throated Blue Warbler 41, Yellow-rumped Warbler 14, Black-throated Green Warbler 18, Blackburnian Warbler 7, Yellow-throated Warbler 3, Pine Warbler 2, Palm Warbler 2, Bay-breasted Warbler 1, Blackpoll Warbler 1, Black-and-white Warbler 15, American Redstart 8, Worm-eating Warbler 2, Swainson's Warbler 1, Ovenbird 51, Louisiana Waterthrush 1, Common Yellowthroat 13, Hooded Warbler 43, Canada Warbler 3, Yellow-breasted Chat 2, Scarlet Tanager 10, Northern Cardinal 144 (124 regular, 20 feeder), Rose-breasted Grosbeak 20 (11 regular, 9 feeder), Indigo Bunting 77 (69 regular, 8 feeder), Eastern Towhee 148 (131 regular, 17 feeder), Chipping Sparrow 41 (37 regular, 4 feeder), Field Sparrow 11, Song Sparrow 174 (169 regular, 5 feeder), White-throated Sparrow 3, White-crowned Sparrow 1 (feeder), Dark-eyed Junco 21 (11 regular, 10 feeder), Red-winged Blackbird 39, Eastern Meadowlark 5, Common Grackle 62, Brown-headed Cowbird 7, Baltimore Oriole 2, House Finch 41 (33 regular, 8 feeder), Pine Siskin 10 (feeder), American Goldfinch 165 (133 regular, 32 feeder), House Sparrow 5.

Total: 110 species; 3400 individuals (3082 regular, 3 night, 0 stationary, 315 feeder).

County Compiler: Norma Siebenheller, 187 Glen Cannon Dr., Pisgah Forest, NC 28768. Participants: Tom Abbott, Elaine Badger, Dorothy Bauer, John Bauer, Carolyn Boatwright, Zee Eacker, Elizabeth Galloway, Jeanne Grimmenga, Ed Hathaway, Ruth Hathaway, Barbara Herzog, Bill Hough, Jean Hough, Nancy Iha, Donna Johnston, Betty Jones, Morgan Jones, Tom Joyce, Ludwig Kempe, Joe Kenoyer, Van Kenoyer, Ruth Klock, Mary Ellen Lindley, Betty McIlwain, Carolyn Mills, Rick Mills, Doc Murphy, Jean Murphy, Erika Parmi, Cliff Petitt, Lois Petitt, Beth Rogers, Speed Rogers, Florence Rogers, Mary Sauerteig, Bill Siebenheller, Norma Siebenheller, Lynn Smith, Aleen Steinberg, Patty Spiro, Charles Stohr, Ginny Tener, Dade Thornton, Dick Thorsell, Gladys Teitgen, Lee Tuttle, Connie Updike, George Updike.

Reference

NAMC Newsletter #2, January, 1994.

BRIEFS FOR THE FILES

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(All Dates Fall 1997)

I rely in part on sightings reported in Carolinabirds. Please don't, however, rely on me to pick up your sightings from Carolinabirds. Instead, please also send your sightings directly to me.

RED-THROATED LOON: One was at Falls Lake, NC, Nov. 16 (Ricky Davis), the only inland report received.

COMMON LOON: Some locally good counts of inland Commons included eight at Cane Creek Res., Orange Co., NC, Nov. 18 (*fide* Jeff Pippen) and seven at Salem Lake, Forsythe Co., NC, Nov. 23 (Ramona Snavely, Regina Burt *et al.*).

PACIFIC LOON: The very rare Pacific Loon was found once this fall. One was well-described at Huntington Beach State Park, SC Nov. 11 (Jack Peachey).

HORNED GREBE: This species arrived in the Carolinas record early. One was found at the Savannah Spoil Site, Jasper Co., SC, on the amazing date of Aug. 31 (Larry & Carol Eldridge). Also a flock of 18 was at Lake Brandt, Guilford Co., NC, Oct. 22 (Herb Hendrickson). This was quite early for such a count of birds.

RED-NECKED GREBE: The only one reported was from Huntington Beach State Park, SC, Nov. 18, as noted by Jack Peachey.

EARED GREBE: The annual flock at the Goldsboro, NC, Wastewater Treatment Plant peaked at 16 birds Oct. 4 (Eric Dean). Other sightings included one at the Bodie I., NC, lighthouse pond Sept. 22 (Henry & Elizabeth Link) and one at the Savannah Spoil Site, SC,, Nov. 14 (Steve Calver).

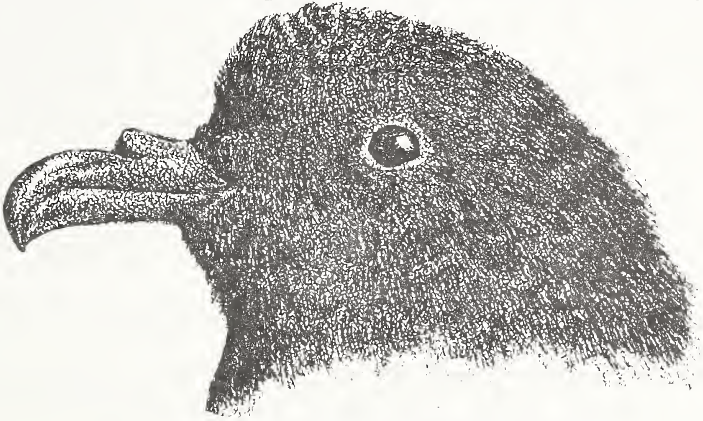
BLACK-CAPPED PETREL: Excellent numbers of this species were found on offshore trips out of North Carolina. The best counts were the 255 off of Hatteras Aug. 9 and the near-record 538 out of Oregon Inlet Aug. 24 (Brian Patteson *et al.*).

HERALD PETREL: There were two found out of Oregon Inlet, NC, this fall. A dark-phase bird was found Aug. 11 (Focus On Nature Tours) and another dark-phase was seen Aug. 31 (Brian Patteson *et al.*).

SOOTY SHEARWATER: Very rare in the fall, one was found out of Oregon Inlet, NC, Aug. 10 (Brian Patteson *et al.*). Observers must exercise caution when identifying Sooties at this season. The Herald Petrel is actually found more often and the two are quite similar when observed at a distance.

GREATER SHEARWATER: Excellent numbers of this tubenose were off North Carolina this fall. The best counts included 410 off of Hatteras Nov. 8 and an amazing 753 out of Oregon Inlet Aug. 25 (Brian Patteson *et al.*).

AUDUBON'S SHEARWATER: One was found alive on the beach at Litchfield Beach, SC, Aug. 1 (Bob & Barbara Maxwell) for an unusual report. The bird later died and the specimen was sent to Clemson University.



Leach's Storm-Petrel. ©1979 D.D. Tyler

LEACH'S STORM-PETREL: A good count of 69 was had out of Oregon Inlet, NC, Aug. 9 (Focus On Nature Tours), the best total this season. Also a "dark-rumped" Leach's was seen off of Myrtle Beach, SC, Aug. 9 (Jack Peachey) for an unusual report.

BAND-RUMPED STORM-PETREL: This species was found in excellent numbers during August pelagic trips off of North Carolina. The peak was an astounding 160 out of Oregon Inlet Aug. 9 (Focus On Nature Tours). The observers mentioned that this record count was made very carefully and that duplication was at a minimum!

WHITE-TAILED TROPICBIRD: Reports out of Oregon Inlet, NC, included two on Aug. 2, one Aug. 3, three Aug. 9, and one Aug. 11 (Focus On Nature Tours). Also Patteson *et al.* had three Aug. 10 and two Aug. 31. Much more interesting was the tropicbird picked up alive on the beach at Atlantic Beach, NC, Sept. 20 (*fide* John Fussell). This individual later died.

MASKED BOOBY: An adult Masked was seen well as it circled the boat out of Morehead City, NC, Sept. 7 (Brad Carlson). This was the only report for the fall season.

NORTHERN GANNET: Unusual early fall sightings included one off of Oregon Inlet, NC, Aug. 25 (Brian Patteson *et al.*) and one from shore at Hatteras, NC, Aug. 23 (Ricky Davis).

AMERICAN WHITE PELICAN: One was at Pea I., NC, Nov. 26 (Sydney Lemieux) and a good count of ten was had at the Savannah Spoil Site, SC, Oct. 17 (Steve Calver).

BROWN PELICAN: Extremely unusual was the immature found inland at Falls Lake, NC, Nov. 2 (Ricky Davis). This lost individual (seen by various observers) remained in the area until at least Dec. 6 (John Frederick). There are only a couple of non-storm-related inland records of this saltwater species.

GREAT CORMORANT: An immature was seen well (and compared with Double-cresteds) at Lake Brandt, NC, Oct. 22 (Herb Hendrickson). There are only a handful of inland records of this species in the Carolinas.

ANHINGA: Slightly out of range Anhingas in North Carolina included singles over Lake Gaston Dam Aug. 10 (Ricky Davis); south of Goldsboro Aug. 16 (Eric Dean); at Jordan Lake Aug. 21 (Simon Thompson); and at Trenton Sept. 4 (Nell Moore).

TRICOLORED HERON: One was locally rare at Lake Brandt, NC, Aug. 24 - Sept. 11 (Herb Hendrickson).

BLACK-CROWNED NIGHT-HERON: Good finds inland were the several at the Beaverdam Wildlife Management Area, Townville, SC, Aug. 22 (Dennis & Donna Forsythe).

SNOWY EGRET: Several individuals of this species were also present at Beaverdam W.M.A., SC, Aug. 22 (Donna & Dennis Forsythe).

REDDISH EGRET: This species was seen less frequently this fall when compared to past seasons. One was present at the usual Sunset Beach, NC, site until mid-October (Mary McDavit) and on Sept. 21 two were found there (Brad Carlson). In South Carolina one was present at Huntington Beach State Park until late November (sev. obs.).

WHITE IBIS: One was locally uncommon at the Beaverdam W.M.A., SC, Aug. 22 (Dennis & Donna Forsythe).

WOOD STORK: The summering site at Sunset Beach, NC, hosted good numbers throughout the fall. A count of 50+ was had there as late as Oct. 5 (m.

obs.). Also of note were the five seen in flight over Mars Bluff, Florence Co., SC, Aug. 29 (Steve Patterson).

TUNDRA SWAN: Some of the better inland (away from normal wintering areas) reports included 20 in eastern Chatham Co., NC, Nov. 12 (Merrill Lynch); 12 in Orange Co., NC, Nov. 16 (*fide* Jeff Pippen); seven at Santee N.W.R., SC, Nov. 21 (Bob & Barbara Maxwell); and two at Carolina Sandhills N.W.R., SC, Nov. 4 (Pete Range). Also of note were nine at Huntington Beach State Park, SC, Nov. 17 (Jack Peachey) and five at the Savannah Spoil Site, SC, Nov. 29 (Steve Calver).

GREATER WHITE-FRONTED GOOSE: One was found near Edenton, NC, in early November and was seen by several observers (Lex Glover, Mary McDavit) over the course of a couple of weeks.

SNOW GOOSE: Noteworthy reports included a Blue phase Oct. 23-Nov.9 and a White phase Nov. 9 at Deerlake, Transylvania Co., NC (Tom Joyce, Betty McIlwain); a White phase Oct. 4 and two Blues Nov. 2 in Bamberg Co., SC, (Lex Glover); a Blue Oct. 14 and a White phase Nov. 15 at Goldsboro, NC (Eric Dean); and a White at Sunset Beach, NC, Oct. 2 (Mary McDavit). Also a good count of 10 were far to the south at the Savannah Spoil Site, SC, Nov. 25 (Steve Calver).

ROSS' GOOSE: One at Pea I. N.W.R., NC, Nov. 8 (Lex Glover) was not too unexpected at that locality. Much more unusual were the two found just north of Greensboro, NC, Nov. 9-18 (Brad Adams, m. obs.). There are only a handful of reports away from the usual coastal areas.

BRANT: One flying south along the beach at Litchfield, Georgetown Co., SC, Oct. 29 (Andreas Kristensen) provided a locally rare and slightly early report.

CINNAMON TEAL: One was found at the Savannah Spoil Site, SC, Nov. 24 (Pat Rising, *fide* Jeff Sewell) for the only fall report. With the increasing frequency of sightings in the Carolinas the past couple of years, one wonders if there are more each year or are observers looking for it more?

EURASIAN WIGEON: North Pond at Pea I. N.W.R., NC, is the best location in the Carolinas to see this species. The peak there this fall was five males Nov. 7-9 (Ricky Davis, sev. obs.).

HARLEQUIN DUCK: A male found with about 20 Wood Ducks in lower Richland Co., SC, Nov. 22 (Heidi Hoerman) must surely have been a major surprise. It was not known if this was a wild bird or an escape from the nearby Riverbanks Zoo in Columbia. Records of this species away from the immediate coast are practically unheard of (there is an Atlanta, GA area record from several years back) and the origin of this bird needs to be checked into.

WHITE-WINGED SCOTER: The only inland report involved two at Salem Lake, Forsythe Co., NC, Nov. 19 (Zack Bynum, *fide* Ramona Snavely).
HOODED MERGANSER: One was quite early at the Bethel, NC, Sewage Lagoons Aug. 17, as noted by Ricky Davis. Could it have been a local nester?
COMMON MERGANSER: The individual seen at Farrington, Jordan Lake, NC, over the past several years, was again found Sept. 7 and Oct. 4 (sev. obs.).
RED-BREASTED MERGANSER: The best inland count received was of the 14 at Falls Lake, NC, Nov. 15 (Jeff Pippen).
SWALLOW-TAILED KITE: Very noteworthy reports included singles in Pickens Co., SC, Aug. 4 (John Batson, *fide* Will Cook); at Townville, SC, Aug. 16 (Bob & Barbara Maxwell); and in Orange Co., NC, Aug. 3 (Harriet Whitehead).
MISSISSIPPI KITE: Unexpected was one soaring in north Raleigh, NC, Aug. 4 (Joe Harris), and a migrant was uncommon at Huntington Beach State Park, SC, Sept. 29 (Jack Peachey). Two were seen just west of Creswell, Washington Co., NC, on the amazingly late date of Nov. 21 (Haven Wiley, Jeremy Hyman). This is possibly a record late date for the species in the state.
BALD EAGLE: This species continues to increase throughout the Carolinas, but an adult at Little Tennessee River, Swain Co., NC, Aug. 12 (Logan Williams *et al.*) was locally rare for the species that far west in the summer.
BROAD-WINGED HAWK: The best one-day counts received were the 1,757 at Fence, Tryon, NC, Sept. 20 (Simon Thompson *et al.*) and the 2,271 at Pilot Mt. State Park, NC, Sept. 21 (Toby Gordon *et al.*).
MERLIN: Rare inland was one at East Bend, NC, along the Yadkin River on Sept. 14 (John Ruszowski). Migrants at Pilot Mt. State Park, NC, were seen Sept. 30 and Oct. 16 (Toby Gordon *et al.*) and a total of nine were recorded during the fall at the Mahogony Rock, NC, hawkwatch site (John Alderman, *fide* Jim Keighton). Some good coastal counts of migrants included six at Sunset Beach, NC, Sept. 21 (Brad Carlson) and an impressive 14 in the Moore's Landing, SC, area Oct. 19 (Robin Carter, Caroline Eastman, Jerry Griggs, Andrea Ceselski).
PEREGRINE FALCON: Inland reports included singles at Beaver Lake, Asheville, NC, Aug. 19 (Simon Thompson); Duke Forest, Orange Co., NC, Aug. 22 (Jeff Pippen); Orangeburg, SC, Sod Farm Sept. 27 (Bob & Barbara Maxwell, Lex Glover); and Winston-Salem, NC, Oct. 15 (Royce Hough). An excellent coastal count of 15 was had in the Nags Head - Roanoke Island, NC, area Sept. 30 (John Fussell).
SANDHILL CRANE: This species staged one of its best migrations through the Carolinas this fall. One was an early wanderer at Pea Island N.W.R., NC,

Aug. 24-Sept. 3 (Marion Dobbs, sev. obs.). Two flocks of four and seven were seen flying over McClellanville, SC, Nov. 16 (Craig Watson, *fide* Dennis Forsythe) for an amazing report. On Nov. 18 three were seen heading south over Hilton Head, SC, as noted by Andreas Kristensen. Also in South Carolina, two were over Henry, Williamsburg Co. Nov. 22 (John Snow). And in North Carolina two were seen on the ground for one day at Rocky Mount Nov. 22 (Danny Lindsey) and two were in flight at Roanoke Rapids Lake on Nov. 23, as noted by Ricky Davis.

BLACK-BELLIED PLOVER: Inland birds included 2-3 at Falls Lake, NC, Oct. 12 and Nov. 2 (Ricky Davis); one at the Orangeburg, SC, Sod Farm Aug. 9 (Robin Carter, Caroline Eastman); and 15 at L. Mattamuskeet, NC, Aug. 30 (Davis).

AMERICAN GOLDEN-PLOVER: This species also came through the Carolinas in higher than normal numbers. The best totals included ten at Hooper Lane, Mills River, NC, Sept. 25 (Jennifer Wren, Rick Hensley); eight at the Orangeburg, SC, Sod Farm Sept. 26 (Simon Thompson); seven at the Bucksport Sod Farm, Horry Co., SC, Sept. 20 (Tonya Spires); and six at L. Mattamuskeet, NC, Sept. 6 (John & Paula Wright, Bert Fisher *et al.*). The earliest was at the Orangeburg, SC, Sod Farm Aug. 21 (Donna & Dennis Forsythe) and the latest was at the Savannah Spoil Site, SC, Nov. 14 (Steve Calver).

WILSON'S PLOVER: Four at Bird Shoal, Beaufort, NC, Nov. 16 (John Fussell) was an excellent count for that late in the season.

SEMIPALMATED PLOVER: Inland reports included from 3-6 at Hooper Lane, Henderson Co., NC, Sept. 10-25 (Wayne Forsythe, Simon Thompson, Jennifer Wren, Rick Hensley); two at L. Townsend, Guilford Co., NC, Sept. 7 (Herb Hendrickson, Danny Royster, Scott DePue); one at the Orangeburg, SC, Sod Farm Aug. 16 (Larry & Carol Eldridge, Anne & Vernon Waters); and an impressive 181 at L. Mattamuskeet, NC, Aug. 30 (Ricky Davis).

BLACK-NECKED STILT: Locally unusual were six at L. Mattamuskeet, NC, Aug. 30 (Ricky Davis) and three at Sneads Ferry, NC, Sept. 3 (Nell & Jimi Moore).

AMERICAN AVOCET: Rare inland occurrences included one at Dillon, SC, Sept. 4 (Steve Patterson); two at L. Brandt, Guilford Co., NC, Sept. 1 (Scott DePue, Danny Royster, Herb Hendrickson); and one at Goldsboro, NC, Sept. 14 (Eric Dean). Also unusual were the six seen flying up the Cape Fear River in the Ft. Fisher, NC, area in late August (James Parnell, Walker Golder).

UPLAND SANDPIPER: This species was seen in smaller than normal numbers this fall. The best count was of six at the Orangeburg, SC, Sod Farm

Aug. 17 (Royce Hough). Smaller numbers were present there during the rest of August (sev. obs.). Other Uppies found were two at Florence, SC, Sept. 7 (Steve Patterson) and one at the Cherry Hospital area near Goldsboro, NC, Aug. 16 & 29 (Eric Dean).

HUDSONIAN GODWIT: North Carolina reports included two at Pea Island N.W.R Aug. 23 (Ricky Davis) and one there Aug. 25 (Mathew Campbell) and Sept. 27 (Eric Dean). In South Carolina, where much rarer, one was inland at the Orangeburg Sod Farm Sept. 1 (Bob & Barbara Maxwell, David Chamberlain *et al.*) and another or the same on Sept. 26 (Simon Thompson, Larry Farer). Two inland records are amazing for this species which is almost exclusively found coastally in the Carolinas.

RUDDY TURNSTONE: Locally rare was one inland at the Orangeburg, SC, Sod Farm Aug. 9, as noted by Robin Carter and Caroline Eastman.

RED KNOT: Very rare as inland migrants, two were found at Falls Lake, NC, Nov. 2 (Ricky Davis).

SANDERLING: The best inland reports included 15 at Falls Lake, NC, Nov. 2 (Ricky Davis); three at the Goldsboro, NC, Wastewater Treatment Plant Sept. 11 (Gene Howe); one at L. Brandt, NC, Sept. 10 (Herb Hendrickson); and one at Hooper Lane, Henderson Co., NC, Sept. 11-12 (Wayne Forsythe, Simon Thompson).

SEMIPALMATED SANDPIPER: Good inland counts were the 12 at Goldsboro, NC, Aug. 17 (Gene Howe) and the 133 at L. Mattamuskeet, NC, Aug. 30 (Ricky Davis).

WHITE-RUMPED SANDPIPER: Good inland reports involved 11 at L. Mattamuskeet, NC, Aug. 30 (Ricky Davis); two at Goldsboro, NC, Oct. 25 (Eric Dean); and one at Durham, NC, Aug. 5 (Magnus Persmark). Coastally, one was a little late at C. Hatteras, NC, Nov. 8 (Simon Thompson *et al.*).

BAIRD'S SANDPIPER: Rare were two at Hooper Lane, Henderson Co., NC, Sept. 11 (Simon Thompson) and three at L. Mattamuskeet, NC, Aug. 30 (Ricky Davis). Counts of more than one Baird's in the Carolinas are rather unusual and one wonders if this species came through in better than usual numbers.

PECTORAL SANDPIPER: Some excellent counts were had of this species this fall. An impressive count of 235 was had at L. Mattamuskeet, NC, Aug. 30 (Ricky Davis) and 75 were at the Orangeburg, SC, Sod Farm Aug. 22 (Lex Glover, Giff Beaton). Late records included eight at Falls Lake, NC, Nov. 2 (Davis) and one at Bowman, Orangeburg Co., SC, Nov. 29 (Robin Carter, Caroline Eastman) which is possibly a new late date for the state.

DUNLIN: One was very early at Pea Island, NC, Aug. 10 (Magnus Persmark). Good inland reports included 120 at Falls Lake, NC, Nov. 2 (Ricky Davis); 20+ at Goldsboro, NC, Oct. 25 (Eric Dean); and three at Hooper Lane, Henderson Co., NC, Oct. 26 (Ira Weigley).

CURLEW SANDPIPER: The only report received was of one at North Pond, Pea Island N.W.R., NC, Aug. 26 (Matthew Campbell).

BUFF-BREASTED SANDPIPER: This species was well-reported this fall. The best counts were five at Bowman, Orangeburg Co., SC, Oct. 12 (Robin Carter, Caroline Eastman), four at Hooper Lane, Henderson Co., NC, Sept. 10 (Wayne Forsythe), and three at the Savannah Spoil Site, SC, Aug. 31 (Larry & Carol Eldridge). Elsewhere from one to two were at the Orangeburg, SC, Sod Farm during mid-late Aug. (Royce Hough, Donna & Dennis Forsythe, Simon Thompson *et al.*); and singles were at Columbia, SC, Sept. 4 (Lex Glover, John Cely, David Dobson), Florence, SC, Sept. 13 (Steve Patterson), and L. Mattamuskeet, NC, Aug. 30 (Ricky Davis).

RUFF: One was at North Pond, Pea Island N.W.R., NC, Sept. 7 (Gordon Brown, *fide* Steve Dinsmore) for the only report.

WILSON'S PHALAROPE: Good numbers migrated through the Carolinas this fall. An excellent count of 37 was had at the Savannah Spoil Site, SC, Aug. 31 (Larry & Carol Eldridge) with several present there until at least Oct. 19 (Steve Calver). Also up to three were at Pea Island N.W.R., NC, during late Aug. (Simon Thompson, Matthew Campbell). Singles were found at L. Mattamuskeet, NC, Aug. 30 (Ricky Davis), Goldsboro, NC, Sept. 14 (Eric Dean), C. Hatteras, NC, Sept. 7 (Marcia Lyons), and Bodie Island, NC, Aug. 22 (Bob Ake, David Hughes).

RED-NECKED PHALAROPE: One at South Pond, Pea Island N.W.R., NC, Aug. 24 (Ricky Davis) provided the only non-pelagic report of the fall.

RED PHALAROPE: Quite rare were the four at the Savannah Spoil Site, SC, Sept. 26 (Bob & Barbara Maxwell). This species is encountered on land much less than the preceding one. Also one was quite early offshore out of Oregon Inlet, NC, Aug. 30 (Brian Patteson *et al.*).

POMARINE JAEGER: Offshore counts of this species were higher than usual with 12 out of Hatteras, NC, Aug. 3 and an impressive 40+ off of Hatteras Nov. 8 (Brian Patteson *et al.*). Totally unexpected was the immature Pomarine found inland at Falls Lake, NC, Nov. 16 (Ricky Davis) which remained until at least Nov. 22 (Randy Emmitt, Jeff Pippen). This was only about the fourth or fifth non storm-related inland occurrence in the state.

PARASITIC JAEGER: Interesting reports of this species included six from C. Hatteras, NC, Nov. 9 (Ricky Davis); three out of Oregon Inlet, NC, Aug. 30

(Brian Patteson *et al.*); and one in Pamlico Sound in late November (Kent Fiala).

LONG-TAILED JAEGER: This species was found on at least six August trips off of North Carolina with the best total being the seven out of Oregon Inlet on the 25th (Brian Patteson *et al.*). In the unusual department, an adult flew by the point at C. Hatteras, NC, Nov. 9 (Ricky Davis). Almost all onshore sightings of this species occur during the spring migration. Also very rare was the Long-tailed observed off of Myrtle Beach, SC, Aug. 9 (Jack Peachey). The species is found in that state much less frequently than in North Carolina.

SOUTH POLAR SKUA: Two seen out of Oregon Inlet, NC, Aug. 10 (Brian Patteson *et al.*) were the only ones reported this fall.

CALIFORNIA GULL: One adult was at C. Hatteras, NC, Nov. 23 (Brad Carlson); returning to that area for about the fifth year in a row.

ICELAND GULL: A first-winter bird at C. Hatteras, NC, Nov. 23 (Brad Carlson) was expected but the first-winter bird found at Edisto Beach, SC, Nov. 9 (Sid Gauthreaux, Carroll & Ritchie Belser) was a much rarer find for that state.

LESSER BLACK-BACKED GULL: The only inland report was of an adult at Falls Lake, NC, Nov. 8 (Les Todd).

ARCTIC TERN: The Arctic Tern is much harder to come by in the Carolinas during the fall season, thus of note was one out of Hatteras, NC, Aug. 10 (Brian Patteson *et al.*).

BRIDLED TERN: The best one-day total offshore this fall was the 68 counted out of Hatteras, NC, Aug. 23 (Brian Patteson *et al.*).

SOOTY TERN: The peak pelagic totals for this species this fall were 23 off of Hatteras, NC, Aug. 23 and Oregon Inlet, NC, Aug. 25 (Brian Patteson *et al.*). Much more unusual was the immature found on a dock in Beaufort, NC, near the Newport River Sept. 29 (Rich Boyd). This was after a two-day storm and is probably what brought this individual to land.

BLACK TERN: Numbers of this tern seemed down again this year. The best totals reported were the 45 at L. Mattamuskeet, NC, Aug. 30 (Ricky Davis) and the 27 at the Savannah Spoil Site, SC, Aug. 31 (Larry & Carol Eldridge).

DOVEKIE: One was seen sitting in the water at the end of the Long Beach, NC, Pier on the absurdly early date of Oct. 31 (Judy Halleron). This is probably a record early arrival date for this alcid in the state.

ROCK DOVE: In the out-of-place department was a lone Rock Dove offshore out of Hatteras, NC, Aug. 23 (Brian Patteson *et al.*). Where was this bird headed?

EURASIAN COLLARED-DOVE: This species continues to increase with it "becoming widespread in the SC Coastal Plain" (Robin Carter). And in North Carolina, one was brought to a rehab center in New Bern Nov. 24 (Elizabeth Hanrahan); and a colony in Beaufort was brought to light where six individuals have apparently been present for a year or more (*fide* John Fussell).

COMMON GROUND-DOVE: This species is practically gone from North Carolina, thus of note was the individual found at the north end of Pea Island Sept. 5 (John Fussell, Bob Holmes), providing a rare and out of range report.

BLACK-BILLED CUCKOO: Two were found near Spartanburg, SC, Sept. 20 (*fide* Lyle Campbell), a locally rare sighting. Single birds were found at Jackson Park, Hendersonville, NC, Sept. 14, 23 and Oct. 12, 17 (Simon Thompson, sev. obs.). Other reports included one at Ft. Johnson, Charleston, SC, Oct. 22 (Pete Laurie); one at Ellenboro, Rutherford Co., NC, Oct. 15 (JoAnn Martin); and one at the Congaree Swamp Nat. Mon., SC, Oct. 25 (Bob Wood *et al.*).

LONG-EARED OWL: One was a complete surprise when it was flushed from the pines bordering the entrance road to the L. Mattamuskeet N.W.R. headquarters Nov. 16 (Haven Wiley *et al.*).

NORTHERN SAW-WHET OWL: Frank Enders banded three near Halifax, NC, this fall. This is much less than the number banded during the record flight year of 1994-5.

CHIMNEY SWIFT: Three were late at Ocracoke, NC, when seen near the Ocracoke-Swan Quarter Ferry Terminal Nov. 8 (Mike Tove *et al.*).

RUFOUS HUMMINGBIRD: In North Carolina adult males were found at Kitty Hawk in August (*fide* John Fussell, Jeff Lewis) and at Ocean Isle in September (*fide* Mary McDavit). And an immature male was banded by the Sargents in Durham during November. Other *Selasphorus* types were found scattered throughout the two states but the exact identities remain a mystery.

YELLOW-BELLIED FLYCATCHER: Reports of this species were about normal for the fall with singles at Rocky Mount, NC, Sept. 1 (Ricky Davis); Wayne Co., NC, Sept. 6 (Eric Dean); Richlands, NC, Sept. 10 (Nell Moore); and Buxton, NC, Sept. 13 (Marcia Lyons).

WILLOW FLYCATCHER: *Empidonax* flycatchers of the Traill's type are notoriously hard to identify in the fall unless vocalizations are heard. Thus of note were single birds seen and heard on Roanoke Island, NC, Sept. 3 (Jeff Lewis) and at Orton, Brunswick Co., NC, Sept. 6 (Greg Massey).

ALDER FLYCATCHER: One still singing at Carver's Gap, Roan Mt., NC, Aug. 19 (Rick Knight), provided a record late date for the species at that site.

LEAST FLYCATCHER: The only reports received included one in Florence, SC, Sept. 15 (Steve Patterson) and one near Tillman, Jasper Co., SC, Aug. 31 (Giff Beaton, Lex Glover, Jim Flynn, Shawn Reed).

WESTERN KINGBIRD: This regular fall migrant was found several times this season. One at Pea Island, NC, Sept. 21 (Wayne Irvin) was a little early, but others at Pea Island Nov. 24 (Coastal Wildlife Refuge Society Staff), Bodie Island, NC, Nov. 25 (C.H. Gambill), and Salvo, NC, Nov. 28 (Keith Camburn) were in the regular time frame for the species. Much rarer inland, one was found near Laurinburg, NC, Oct. 29 (Barbara Gearhart). Other sightings included one at Eagle Island, Wilmington, NC, Oct. 4 (Nell Moore, sev. obs.) and one at Moore's Landing, Charleston Co., SC, Oct. 19 (Robin Carter, Caroline Eastman, Jerry Griggs, Andrea Ceselski).

GRAY KINGBIRD: One on Hilton Head Island, SC, Aug. 28 (Gail B. Ice, *fide* Taylor Piephoff) was the only one reported this fall.

SCISSOR-TAILED FLYCATCHER: An adult was seen at Edisto Beach, SC, Sept. 22 (Taylor Piephoff), providing the only report of this annual visitor to the Carolinas.

BANK SWALLOW: Amazing numbers of this swallow built up at the Orangeburg, SC, Sod Farm in August. On the 9th, 537 were counted (Robin Carter, Caroline Eastman); and then by the 16th, up to 2000 were estimated to be present (Anne Waters *et al.*). This must surely be a record count for the Carolinas.

CLIFF SWALLOW: A count of 200+ at Hooper Lane, Henderson Co., NC, Sept. 10-11 (Wayne Forsythe, Simon Thompson) was certainly a local record total for the species. Also one was very late at L. Brandt, Guilford Co., NC, Nov. 15 (Herb Hendrickson, Danny Royster, Scott DePue). This individual was observed very closely to rule out the just as likely Cave Swallow.

BARN SWALLOW: Late Barns included three at Ocracoke, NC, Nov. 8 (Nell Moore); one at C. Hatteras, NC, Nov. 8-9 (Simon Thompson, Bert Fisher *et al.*); and one at Bird Shoal, Carteret Co., NC, Nov. 16 (John Fussell).

COMMON RAVEN: Good reports included one at the Walhalla Fish Hatchery, Oconee Co., SC, Aug. 22 (Dennis & Donna Forsythe) and one in the Piedmont near Kernersville, NC, Sept. 19 (Harry LeGrand).

CAROLINA CHICKADEE: Two were seen just south of the Salvo, NC, campground Sept. 27 (John Fussell) in a part of the Outer Banks where the species is rarely found.

RED-BREASTED NUTHATCH: This species arrived in the Carolinas in spotty but widespread fashion this fall. Of note was the early arrival of five at Pea Island, NC, Sept. 5 (John Fussell, Bob Holmes).

SWAINSON'S THRUSH: A good pre-dawn count of 30+ was had at FENCE, Tryon, NC, Sept. 15 (Simon Thompson). Also 149 were banded at Carver's Gap, Roan Mt., NC, during the fall by Rick Knight.

HERMIT THRUSH: An immature was banded at Carver's Gap, Roan Mt., NC, Sept. 12 (Rick Knight), probably from the local breeding population there. Also two were seen at the Silver Bluff Audubon Sanctuary, Jackson, SC, Sept. 20 (Larry & Carol Eldridge), providing a possible new early arrival date for the state.

AMERICAN PIPIT: Two were early at Carver's Gap, Roan Mt., NC, Sept. 22 as noted by Rick Knight.

BLUE-HEADED VIREO: Twelve at Jackson Park, Hendersonville, NC, Oct. 16 (Wayne Forsythe) was an excellent one-day total.

WARBLING VIREO: This very rare fall migrant was found once, on Roanoke Island, NC, Sept. 5, by Jeff Lewis.

PHILADELPHIA VIREO: Reports were too numerous to mention of this species. The earliest was at Carver's Gap, Roan Mt., NC, Sept. 12 (Rick Knight) and the latest was in Leland, Brunswick Co., NC, Oct. 25 (Greg Massey).

GOLDEN-WINGED WARBLER: Some interesting reports included one at Hilton Head Island, SC, Oct. 4 (Royce Hough); one at Bowman, Orangeburg Co., SC, Oct. 12 (Robin Carter, Caroline Eastman); and three at Jackson Park, NC, Sept. 13 (Keith Camburn). Also 12 were recorded at Jackson Park during the period Sept. 7-27 (Simon Thompson), an excellent total.

HYBRIDS: "Brewster's" Warblers were found at Carolina Beach State Park, NC, Sept. 5 (Jimi & Nell Moore) and Jackson Park, NC, Sept. 21 (Simon Thompson, Wayne Forsythe). The much rarer "Lawrence's" Warbler was found in southern Greenville Co., SC, Aug. 23 (Pete Worthington).

NASHVILLE WARBLER: Jackson Park in Hendersonville, NC, hosted good numbers this fall with at least ten being found there during the period Sep. 13 - Oct. 18 (Simon Thompson). Other reports included one at the Congaree Swamp Nat. Mon., SC, Sept. 20 (Robin Carter); one at Harbor Island, SC, Sept. 20 (Judy Halleron); and one on Roanoke Island, NC, Sept. 5 (Jeff Lewis).

CHESTNUT-SIDED WARBLER: The peak one-day count at Jackson Park, NC, was an impressive 50+ Sept. 14, as noted by Simon Thompson.

MAGNOLIA WARBLER: Thompson also had 50+ individuals of this warbler at Jackson Park, NC, Sept. 14, another excellent total.

BLACK-THROATED BLUE WARBLER: One was late at Pea Island, NC, Nov. 7 (Simon Thompson *et al.*).

BLACKPOLL WARBLER: An amazing one-day total for this species was the 30+ seen at Rodanthe, NC, Sept. 28 (Eric Dean).

CERULEAN WARBLER: Always noteworthy in migration, reports of this species included one at Jackson Park, NC, Aug. 9 (Simon Thompson); two at Carolina Beach State Park, NC, Sept. 5 (Jimi & Nell Moore); one at Orton, Brunswick Co., NC, Sept. 7 (Greg Massey); one at Highlands, NC, Sept. 13 (Haven Wiley *et al.*); one in Georgetown Co., SC, Sept. 24 (Jack Peachey); and three at Caesar's Head State Park, SC, Aug. 12 (Lex Glover, Giff Beaton).

PROTHONOTARY WARBLER: Some very late birds were found including two at the Silver Bluff Audubon Sanctuary, Jackson, SC, Sept. 20 (Anne Waters) and one at Rodanthe, NC, Sept. 27 (John Fussell, Eric Dean *et al.*).

LOUISIANA WATERTHRUSH: An exceedingly late individual was well-studied at Harbor Island, SC, Sept. 30 (Judy Halleron). The bird hit a window and was able to be studied in the hand.

CONNECTICUT WARBLER: Only two reports this fall: one was found at Ft. Caswell, NC, Oct. 4 (Nell Moore, sev. obs.), and one was seen in Simpsonville, SC, Oct. 8 (Pete Worthington).

MOURNING WARBLER: It is practically unheard of for this species to be seen more times in a season than the preceding. This fall one was near the New River, Ashe Co., NC, Aug. 31 (Eric Dean); one was near Jordan Lake, NC, Sept. 20 (Norm Budnitz); one was at the Congaree Swamp Nat. Mon., SC, Sept. 20 (Caroline Eastman); one was at Jackson Park, NC, Sept. 21 (Simon Thompson, Wayne Forsythe, J. Edwards); and one was at Eagle Island, Wilmington, NC, Oct. 4 (Bob Wood, sev. obs.).

WILSON'S WARBLER: This species came through the western part of the state in good numbers, as evidenced by the total of about 20 at Jackson Park, NC, during the fall (Simon Thompson, Wayne Forsythe). Also good finds were the singles at Roanoke Island, NC, Sept. 5 (Jeff Lewis), the Savannah Spoil Site, SC, Sept. 12 (Steve Calver), in Brevard, NC, late Sept. (Tom Joyce), and at Glen Cannon, NC, Oct. 12 (Bill & Norma Siebenheller).

CANADA WARBLER: One was a locally noteworthy find at L. Mattamuskeet, NC, Sept. 14 (Harry LeGrand, Jeff Pippen, J. Finnegan).

DICKCISSEL: One at Rodanthe, NC, Sept. 26 (John Fussell) was the only migrant reported this fall.

CLAY-COLORED SPARROW: Sightings were down somewhat this fall. Single individuals were found at Long Beach, NC, Oct. 2 (Len & Esther Pardue); at Ft. Fisher, NC, Nov. 2 (Barbara Gearhart); at Pea Island, NC, Nov. 8-10 (Simon Thompson, sev. obs.); and at Simpsonville, SC, Nov. 24 (Pete Worthington).

LARK SPARROW: Reports included one at Rodanthe, NC, Sept. 5 (John Fussell); one at Pea Island, NC, Sept. 21 (Wayne Irvin) and Oct. 9 (Lance Peacock); and one at Allendale, SC, Nov. 27 (Lex Glover).

LeCONTE'S SPARROW: This rare and elusive sparrow was found only at the Savannah Spoil Site, SC, Nov. 14&26 (Steve Calver) this fall.

LINCOLN'S SPARROW: Good western area sightings included one at Glen Cannon, NC, Oct. 2 (Bill & Norma Siebenheller); one at Brevard, NC, Nov. 1 (Betty McIlwain); two at Jackson Park, NC, Oct. 18-19 (Simon Thompson); and one at FENCE, Tryon, NC, Oct. 23 (Thompson).

LAPLAND LONGSPUR: This species was found at several usual areas. Two were at Hooper Lane, Henderson Co., NC, Nov. 13 (Wayne Forsythe); five were at C. Hatteras, NC, Nov. 28 (Kent Fiala); and from one to three were at Huntington Beach State Park, SC, Nov. 29-30 (Lex Glover, Chris Eley, sev. obs.).

SNOW BUNTING: One was out of place as it flew off the US 64 bridge over Croatan Sound, west of Roanoke Island, NC, Nov. 7 (Harry LeGrand). This was the only report received for the fall.

BOBOLINK: One was late at Pea Island, NC, Nov. 8-9, (Simon Thompson, sev. obs). Also a migrant flock of over 700 birds feeding in rye was an impressive sight near Southport, NC, Oct. 3-4 (Ricky Davis, sev. obs.).

YELLOW-HEADED BLACKBIRD: This fall's sightings involved a female near Sunset Beach, NC, Sept. 6 (Barbara Gearhart); a male at Long Beach, NC, Sept. 23 (Bonnie Harris); and a male in Morehead City, NC, Oct. 5 (Pat Hoss, *fide* John Fussell).

BREWER'S BLACKBIRD: The only one reported was a male at Townville, SC, Nov. 23, as noted by Sid Gauthreaux and Carroll Belser.

BALTIMORE ORIOLE: Some good totals included 20+ at Jackson Park, NC, Sept. 7 (Simon Thompson) and 200 flying north at Pea Island, NC, Sept. 5 (Bob Holmes, John Fussell).

PINE SISKIN: This species arrived in the Carolinas in locally small numbers. The best flock reported was of 30 in Simpsonville, SC, Nov. 23 (Pete Worthington).

WHITE-WINGED CROSSBILL: A tame and hungry female was found at the north end of Pea Island, NC, Nov. 8 (John Wright, John Fussell, m. obs.). The bird was seen throughout the day by many participants of the Wings Over Water Festival being run that weekend. Needless to say, this individual was most likely seen by more observers than any previous White-winged ever found in the state!

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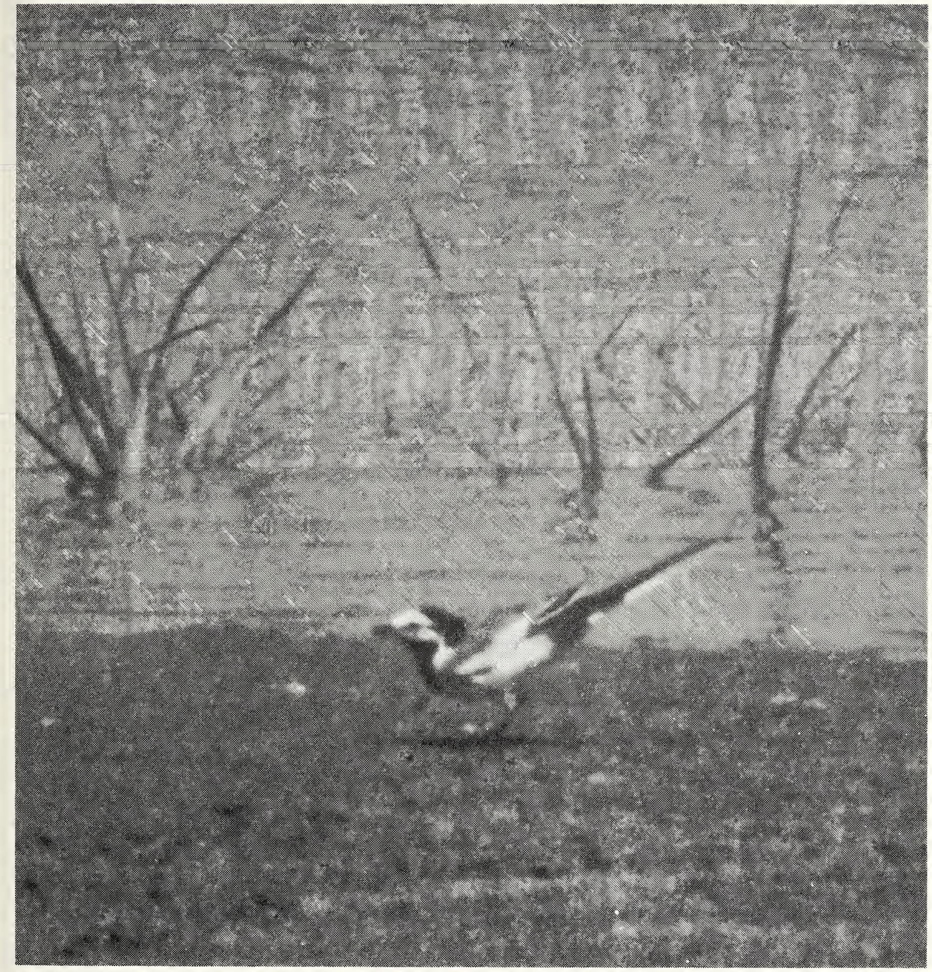

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General Field Notes

North Carolina	**South Carolina**
Will Cook	Dennis M. Forsythe

Briefs for the Files . . . . Ricky Davis

Editor Emeritus . . . . Eloise Potter

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Articles

Recent Breeding Range Expansion of Cedar Waxwings in North Carolina. *David S. Lee and Herbert T. Hendrickson* 141

General Field Notes

White Wagtail in South Carolina: First Record for US Eastern Seaboard. *Kenneth Behrens.* 149

Northern Fulmar Collected in South Carolina: Southernmost Verified Occurrence for Atlantic Coast. *William Post, Katherine Higgins, Lex Glover, and Taylor Piephoff* . . 152

Red-billed Tropicbird Salvaged in South Carolina: First Specimen for State. *William Post, Dennis M. Forsythe, Randolph R. Scott, and Peter Worthington* 155

White-winged Crossbill Observed in Richland County, South Carolina: First Record for South Carolina. *Robin Carter and Caroline M. Eastman* 157

Briefs for the Files, Winter 1997 159

Book Review: Atlas of the Breeding Birds of Tennessee *170*

Cover photo of White Wagtail at Huntington Beach State Park by Phil Turner, Myrtle Beach, SC.

Recent Breeding Range Expansion of Cedar Waxwings in North Carolina

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Historically the breeding distribution Cedar Waxwing (*Bombycilla cedrorum*) was poorly understood in North Carolina. Direct evidence of nesting in the state through the first part of this century is limited. A nest was found in Raleigh 13 June 1890. A newly-built nest was found at Blowing Rock 12 August 1929. Burleigh (1941) observed a bird gathering nesting material on Mount Mitchell on 10 August 1931. Cedar Waxwings were said to summer in small numbers at Rocky Mount (Pearson *et al.* 1942). Stupka (1963) added information on their breeding status in the Great Smoky Mountains National Park in the early 1960s, but all specific records were from the Tennessee side of the park.

A major problem in documentation of breeding is the protracted spring departure of wintering flocks and the frequent late nesting of the species (Bent 1950). It is now generally accepted that historically this species was largely confined to high elevation areas of our mountains as a breeding bird and that even there Cedar Waxwings nested sporadically. In 1970 Simpson *et al.* (1970) provided a summary of our knowledge on the breeding distribution of the species in North Carolina. They noted that while most of the published information on nesting in the state is from the piedmont and low mountain valleys, the bulk of the breeding population is found above 3,000 feet. Potter *et al.* (1980) were aware of no additional information and noted that waxwings breed throughout the higher elevations of our mountains. They also noted that on rare occasions waxwings nest across the northern half of the piedmont, nesting eastward to Wake County and Rocky Mount. Neither Simpson *et al.* (1970) nor Potter *et al.* (1980) gave any indication of a range expansion for this species within the historical period.

The distribution of this bird as a breeding species, or at least our knowledge of it, changed very little in the first 80 years this century. In this study we summarize the reported nesting evidence and nesting phenology for Cedar Waxwings in North Carolina, and we document a recent range expansion of breeding individuals through the piedmont and onto the coastal plain.

Table 1 summarizes the known breeding distribution of Cedar Waxwings in North Carolina. Records and reports are arranged geographically and by county. We have included reports which document nesting and all sightings of birds from July which imply nesting. Reports from other months cannot be separated from those of migrants without nesting evidence (see below). Reports from the North Carolina Breeding Bird Atlas (BBA) project and nest record card program (NC State Museum) that indicated probable or confirmed nesting are also included. Simpson (1992) reported on 35 sites along the North Carolina Blue Ridge where Cedar Waxwings occur during the breeding season. These are included in Table 1 in the few cases where these reports represent additional county breeding season occurrence records. Since the 1970s and 1980s (Simpson *et al.* 1970; Potter *et al.* 1980), nesting evidence in the following counties south and east of previously established geographical limits has been reported: Piedmont— Chatham, Cleveland, Franklin, McDowell, Polk, Yadkin; Sandhills and Coastal Plain — Bladen, Chowan, Craven, Cumberland, Currituck, Gates, Harnett, Hoke, Moore, Richmond, and Scotland. There are also now confirmed breeding records for six mountain counties (Allegheny, Ashe, Cherokee, Graham, Swain and Transylvania) where the species had not previously been recorded (Table 1). These records show the species to have generally increased in overall abundance and to have spread eastward and southward.

Waxwings began expanding onto the coastal plain and outer coastal plain of North Carolina in the 1980s, and the process is ongoing (Figures 1 and 2). We are confident that this is an actual range expansion and not simply the recent documentation of an already established distribution. Carter (1971) in his review of the birds of North Carolina's Sandhills did not consider the species as a summer resident in the 1960's. Lee (1986, 1987) did not find these birds breeding in the state's pocosins or Carolina Bays in the 1980's. In fact, one of our recent records is from White Lake, Bladen County, where the birds were found on one of Lee's primary study sites. Figure 2 illustrates the general timing of reports of breeding Cedar Waxwings on the piedmont and coastal plain of North Carolina.

During this same period Cedar Waxwings have expanded their breeding distribution into South Carolina. Sprunt and Chamberlain (1949) did not include them as breeding species in their *South Carolina Bird Life*, although they recognized the possibility of the species being found as a breeder in the highlands of the far west. Subsequently waxwings have been reported as breeding at several sites in South Carolina (McNair and Gauthreaux 1984; Rodgers and Post 1989). The latter of these reports is from the lower coastal plain of that state, suggesting that this species may be more widespread in South Carolina than current documentation indicates (see also comments about breeding in Post & Gauthreaux 1989; McNair & Post 1993).

The species has a protracted nesting period, and nest construction has been observed between 28 May (Yadkin County BBA records) and 26 August (eggs, Blowing Rock, Pearson *et al.* 1942). Adults have been seen feeding young as late as 3 September (Chat 57:107). The earlier nesting dates presented in Table 1 overlap with periods when winter residents and migrants are still present in the state, so it is likely that many early nesting pairs are overlooked. Likewise, late nesting dates are well within the period of fall migration for many local songbirds.

Little information is available on the breeding phenology of this bird at the southern limits of its breeding range, but what is compiled here shows little synchronization in breeding. We do not know if the latest breeding records are of second nestings. There seems to be little seasonal variation in nesting that can be attributed to geography or habitat. Nesting peaks, if they exist, tend to be late in the season.

Spring migration extends well into May. A flock of 100 was reported on May 23 and 24 in Raleigh (Chat 21:17), and a flock of 20 was reported there on 26 May (Chat 25:75). A group of 60 migrants was reported on the coastal plain (Bladen County) as late as 24 May (Chat 45:108). Individuals and small groups of late migrant or vagrant waxwings have been reported at various sites in the state well into June. Fall migrants have been seen as early as 25 August at Pea Island (Chat 27:25). This leaves July as the only month for which local migratory movements have not been suggested. While we have included all published occurrence reports of Cedar Waxwings from July in Table 1 and Figure 1, this only implies, and is not proof of, breeding.

Nesting sites are in a number of different community types, with some indication of nesting pairs forming loose colonies. Nesting is mostly in pines, but it has also been reported in other situations including: heath balds, hawthorn thickets, woodland margins (Simpson 1992), edges of spruce fir forest, riparian sycamores, river margins, suburban settings, Carolina Bays, bay lakes, and Bald Cypress stands.

We cannot attribute specific land changes, resulting from human activities, to be associated with the recent range expansion of Cedar Waxwings in the southeast. Because of the large number of reports from urban piedmont settings, it seems logical that human induced landscape changes have benefitted this species. The recent timing of this range expansion, compared to the actual periods when the landscape was modified, however, does not match. Reports from early in the century indicate the existence of isolated populations in the piedmont, with no indication of local expansions through the 1980s. For Cedar Waxwings, and other breeding birds, we tend to think of the preceding fifty to one hundred years as our benchmarks of distributional and abundance norms. This is far from the case. Glaciated climate conditions have predominated in North America for more than 80% of the past 900,000 years (Ruddiman and Raymo 1988). Much of unglaciated southeastern North America was occupied by spruce/fir forests throughout this period, and the current warmer and drier period which the region is now experiencing is one of maximum deglaciation that has persisted for only about the last 500 years. It is reasonable to assume that Cedar Waxwings were ubiquitous breeding residents throughout most of the southeast until very recently, and that their current expansion is a reoccupation of a former range. Why this is occurring, why it is occurring now, and why this particular change in distribution is occurring in Cedar Waxwings, and not all avian species with distribution centers to our north, is simply unknown.

Acknowledgments

We thank the many volunteers of the Breeding Bird Atlas and Nest Record Card programs for their participation. Susan Campbell provided electronic copies of the NC State Museum of Natural Sciences data base.

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Figure 1. Occurrence of Cedar Waxwings during the breeding season

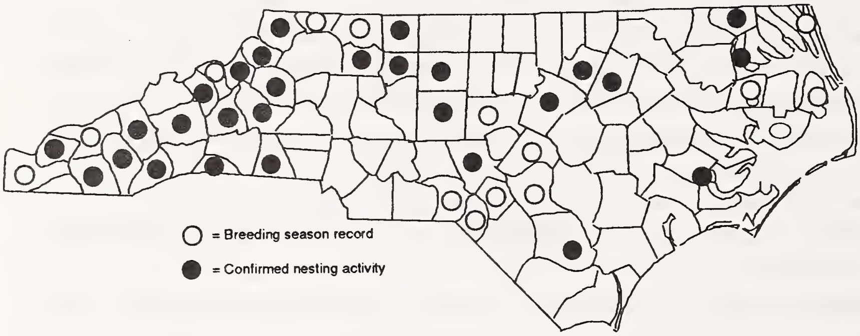
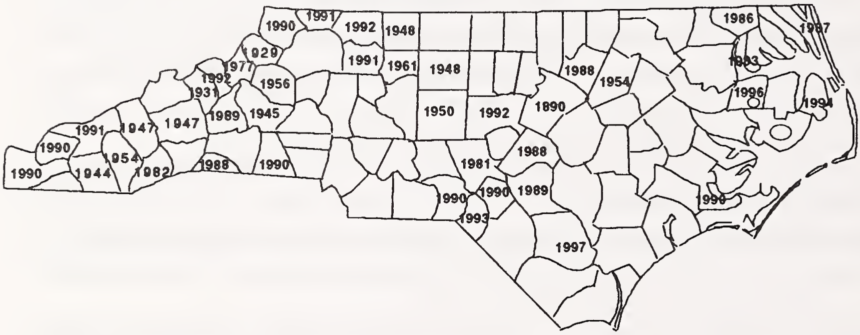

○ = Breeding season record
● = Confirmed nesting activity

Figure 2. Dates of first breeding season reports of Cedar Waxwings in North Carolina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Carolina Bird Club Web Site
http://members/aol.com/cbirdclub

Table 1 Nesting Season Records of Cedar Waxwings in North Carolina

County	Locality	Observation	Citation
Mountains			
Allegheny	Doughton Pk		Simpson 1992
Ashe	nr Chestnut Hill		Simpson 1992
Ashe	nr jct SR 1594/1601	nest building 7 June 1990	Nest Record Card
Avery		yg left nest 22 Aug. 1977	Potter 1978
Avery	Avery Co. Airport	pr. building nest 10 June, 1992	BB Atlas, NCSM
Buncombe	Biltmore	4 yg fledged 10 July, 1947	Chambers 1947
Graham	Lake Santeetla	newly fledged young, 17–19 June, 1990	BB Atlas, NCSM
Haywood	Lake Junaluska	2 nests, 8 yg fledged 4-5 July, 1947	Lesley 1947
Haywood	Black Balsom Knob	nest with 2 eggs, 25 Aug, 1984	Duyck & McNair 1991
Haywood	Great Balsam Mtns.	nest building, 25 Aug. 1987	Duyck & McNair 1991
Jackson	Balsam Gap	pr 12 June, 1954	Murphy 1954
Jackson	nr Cullowhee	2 ad feeding 3 yg Summer, 1982	Chat 27:82
Jackson	Plott Balsam Mt.	various sites	Simpson 1992.
Macon Co	Highlands	3 pr seen 5 July–22 Aug. 1944	Howell et al 1947
Mitchell		singing male, 9 June, 1992	BB Atlas, NCSM
Swain	Great Smoky Mtns NP	various	Stupka 1963
Swain	Wolf Laurel Gap		Simpson 1992
Transylvania	Brevard	nesting and yg 1982	Chat 47: 55
Transylvania			Siebenheller 1995
Watauga	Blowing Rock	new nest 12 Aug., eggs 26 August 1929	Pearson, et al 1942
Watauga		carrying food, 19 June, 1991	BB Atlas NCSM
Yancey	Mt. Mitchell	gathering nesting material 10 Aug. 1931	Pearson, et al 1942
Yancey	Mt. Mitchell	observed, 2–5 Aug., 1962	Davis 1962
Piedmont			
Burke	Spense Field	2–31 Aug. 1945	Chat 10:18
Burke	Valdese	2–25 Aug. 1954	Chat 10:18
Caldwell	Lenoir	8 July 1956	Chat 20:83
Chatham	near Jordan Lake	summer, 1992	BB Atlas, NCSM
Cleveland	near Lattimore	pr building nest early June 1990	Chat 55: 64
Cleveland		pr on nest on 12 June 1990	Chat 55: 64
Forsyth	Winston-Salem	pr 5 June 1961	Chat 25:75
Forsyth	Winston-Salem	8 sightings from mid June-mid July 1967	Chat 40:20
Forsyth	Salem Lake	2 ad feeding 4 yg 14 July 1971	Chat 36:37
Forsyth	Salem Lake	nesting evidence 1977	Potter 1978
Forsyth		fledgling 3 July 1981	Chat 46: 24
Forsyth	Tanglewood Park	12 nests, 30 May to 10 July 1986	Chat 51: 81
Forsyth	Hillcrest Golf Course	fledgling with parent 25 July 1989	Chat 54: 69
Forsyth	Tanglewood Park	2 pr with fledged young	Chat 54: 69
Franklin		1 block confirmed, 1988	BB Atlas NCSM
Guilford	Greensboro	3 nests	Craft 1949
Guilford	Greensboro	ad feeding fledged yg June 18-19 1948	Shaftsbury 1949
Guilford	Greensboro	fledged yg 5-6 July 1948	Shaftsbury 1949
Guilford	McLeansville	nest building, 13 June, 1990	pers. obser.
McDowell		3 confimed nests, May-June 1989	BB Atlas, NCSM
McDowell	Crabtree Meadows,		Simpson 1992
McDowell	Linville Falls		Simpson 1992

County	Locality	Observation	Citation
Nash	Rocky Mount	summer	Pearson et al 1942
Nash	Rocky Mount	incubation, 10 June 1954	Joyner 1954
Nash	Rocky Mount		Joyner 1954
Nash	northern	2 ad carrying food 10 June 1990	Chat 55: 64
Nash	Rocky Mount	2 ad feeding yg 28 June 1990	Chat 55: 64
Polk	Green Creek	nest building 11 June 1988	Chat 53: 76
Polk	Tryon	pr on nest 14 July, 1990	Chat 55: 64
Polk		2 fledged yg early July 1990	Chat 55: 64
Polk	Tryon	pr building nest July 18 1992	Chat 57: 84
Polk	Tryon	pr feeding yg 3 Sept. 1992	Chat 57: 107
Randolph	High Point	4 nest June 1950, 2 nest incubation 11 June	
Mattocks 1950			
Stokes	Hanging Rock, SP	3 nests, June 1948	Craft 1949.
Surry		1 block, possible 2 June 1992	BB Atlas, NCSM
Wake	Raleigh	nest 13 June 1890	Brimley 1891;
Wake	Raleigh	pr on 15 June and 4 July 1984	Chat 49: 26
Wake	Falls Lake	8 seen on 15 July 1984	Chat 49: 26
Wake	Raleigh	nest with 3 yg 14 July 1985	Chat 50: 26
Wake	Falls Lake	2 ad with imm. 18 July 1988	Chat 53: 76
Wake	Zebulon	2 ad feeding yg; 4-7 June 1990	Chat 55: 64
Wake	n. of Raleigh	nest building 11 June, 1990	Nest Record Card
Wake		2 blocks confirmed	BB Atlas NCSM
Yadkin	Donnaha Park	nest building 28 May, 1991	Nest Record Card
Sandhills			
Cumberland	nr Fayetteville	one bird 8 July 1989	Chat 54: 69
Cumberland		1 block probable	BB Atlas NCSM
Harnett		1 block probable, 1988	BB Atlas NCSM
Hoke		1 block probable,10 May 1990	BB Atlas NCSM
Moore		1 block probable	BB Atlas NCSM
Moore	Southern Pines	2 on 17 July 1981	Chat 46: 24
Moore	Whispering Pines	flightless yg 15 July 1984	Chat 49: 25
Moore	Pinehurst	5 seen mid July 1984	Chat 49: 26
Moore	Southern Pines	pair nested 1984	Chat 49: 26
Richmond		1 block probable, 1990	BB Atlas NCSM
Scotland		1 block probable, 1993	BB Atlas NCSM
Coastal Plain			
Bladen	White Lake	nest building, 30 May 1997	pers obser
Chowan	Rockyhock	pr "unusually agitated" 10 June 1983	Chat 48: 101
Craven	Great Neck Point	fledged 6 June 1990	Nest Record Card
Craven	se, on Neuse River	nesting 1990	Chat 57: 84
Currituck	Currituck Banks	one seen 22 July 1987	Chat 52: 68
Currituck		1 block probable	BB Atlas NCSM
Dare	Stumpy Pt	2-7 wandering imms, 15-31 July 1994	Chat 59: 80
Dare	Stumpy Pt	four all summer 1996	Chat 61: 126
Franklin	Bunn	several nesting summer 1984	Chat 49: 25
Gates	Merchants Millpond SP	2 ad with 2 juv 19 July 1986	Chat 51: 81
Gates	Merchants Millpond SP	June and July 1987	Chat 52: 68
Washington	Lake Phelps	one seen 13 July 1996	Chat 61:126

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White Wagtail in South Carolina: First Record on US Eastern Seaboard

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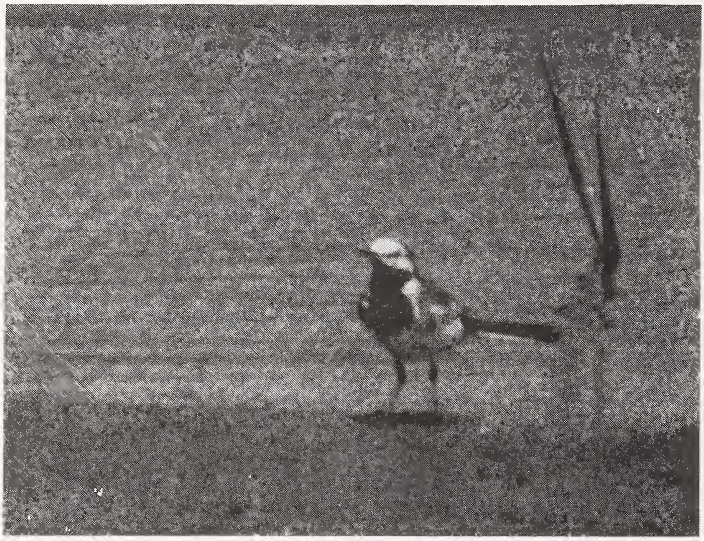
On 16 April 1998, during a visit to Huntington Beach State Park, South Carolina, I went for an early morning walk to the jetty. At 7:40 AM, I caught sight of an unusual bird at the edge of the pond to my left just before I reached the jetty. I saw the bird through my 8 x 40 Nikon binoculars. It was a passerine about 7" long, and its behavior was unusual. The bird seemed to have a large black breast patch that stood out from the white covering much of the rest of the body. Even from about 150' away, I could tell that it was something different. As I got within 50', I became more and more surprised by what I was seeing.

From bird studies and hours of wistfully looking through the field guides, I was familiar with wagtails. I knew that three or four species were found in North America and that none of them should be anywhere near the east coast! Soon, I realized that I was looking at a wagtail species. Knowing how rare wagtails are, I began trying to observe everything I could.

The first behavior I noticed was the way the bird constantly wagged its long tail up and down. It had a thin beak and slim shape. As I looked at the bird's plumage, I saw an incomplete black cap that continued to the base of its neck, along with a thin eye stripe. Extending from the bird's chin to its lower breast was a black patch, roughly in the shape of a diamond. Its bluish-gray back was another distinctive feature. Since I didn’t have a field guide with me, it was only later that I learned that this feature distinguishes it from the Black-backed Wagtail. Later in the day I also noticed its bluish-gray rump. The



White Wagtail at Huntington Beach State Park.
Photo by Phil Turner.

bird's wings were black and white. The secondaries were bright white, while the primaries were black with white streaks. Its tail was black with distinctive white edges. The belly of the bird was white, and it had black feet. The first time I saw it, I couldn't make out bill color, but later in the day I determined that it had a grayish beak. I also noticed that it bobbed its head when walking.

The wagtail appeared to be eating insects as it made its way around the perimeter of the pond. It would flap its wings and run along the ground, snapping them up. This behavior was almost nonstop and was entertaining to watch.

The weather conditions were good, and full sun was shining on the bird. I watched the wagtail for approximately 20 minutes the first time, and for another full hour at other times. I never heard the bird call.

After I had been watching the bird for several minutes, my father, Paul Behrens, walked up. He is only a casual birder, but even so, when I showed the bird to him, he knew that it was something different. I didn't have either pencil and paper or a field guide along with me, so my father and I tried to remember everything we could about the bird so that I could draw it later. We observed it carefully for about 15 more minutes and then quickly returned to our camper in the park.

Back at the camper I immediately sketched an outline of a bird and then filled it in with the marks we'd seen. Then I looked in National Geographic's *Field Guide to the Birds of North America.* The observations my father and I had made, and the sketch I had drawn, matched the illustration of the White Wagtail. There was simply nothing else it could be. I also quickly noted that there were no wagtails in Peterson's *Field Guide to the Birds of Eastern and Central North America* and none on the South Carolina State Checklist. The White Wagtail was described in the National Geographic field guide as being "uncommon to rare in Alaska." This was a rare bird indeed!

With the news of the bird's identity, my father and I found Jerry and Carolyn Barnhart, birders we had met in the park several days earlier. We also found Steve Roff, the Huntington Beach naturalist. The Barnharts and Steve Roff called several people before going to the jetty to investigate my report.

We were able to relocate the bird, and Phil Turner and Jerry Barnhart were able to photograph it. It was then that I finally let myself relax. Other birders had seen the wagtail, and pictures had been taken of it. What a relief!

Very quickly, Phil Turner got the word out, and within the next few days, approximately 150 birders came to see the bird.

White Wagtails are common in the Old World, ranging across Eurasia. They are only seen regularly in North America in western Alaska, where they are known to breed. There have only been 5 previous confirmed White Wagtail sightings from the lower 48 states — two from California, two from Washington, and one (quite recently) from Louisiana. In addition to these confirmed White Wagtail records, there are 10 Black-backed/White Wagtail sightings. In winter plumage, these two species are quite difficult, if not impossible, to separate. One of the Black-backed/White Wagtail reports came from Michigan, while the other nine are from the west coast states. A Black-backed Wagtail was seen in North Carolina in 1982, and very recently a Citrine Wagtail was seen in Mississippi.

This sighting was the first White Wagtail on the east coast, and aside from the Louisiana record, the only one from east of the Rockies. It is also only the second wagtail record of any species from the entire U.S. eastern seaboard.

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Northern Fulmar Collected in South Carolina: Southernmost Verified Occurrence for Atlantic Coast

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A juvenile light-phase Northern Fulmar (*Fulmarus glacialis)* of undetermined sex was found on the beach at Kiawah Island, Charleston County, South Carolina, on 27 February 1998 by Higgins. It had been dead for several days. The specimen (ChM 1998.13.010) was prepared as a standard study skin, with the left wing detached and extended. A partial skeleton was preserved. The bird was determined to be a juvenile by the presence of the bursa of Fabricus. As the internal organs had deteriorated, it could not be sexed with certainty, although it was probably a female. No broken bones were found, and the cause of death could not be ascertained. The bird was emaciated (concave pectoral muscles; little subcutaneous fat). The stomach contained a 2-cm long piece of *Sargassum.* The supraorbital salt gland was only slightly vascularized and measured 21.6 x 11.2 mm. Measurements are: total length, 45.0 cm; tail, 10.9 cm; tarsus, 44.4 mm; flattened wing, 30.5 cm; wing span, 105.5 cm; length of culmen from base, 34.9 mm; width of culmen at base, 16.5 mm.

This specimen provides the first documentation for South Carolina, and the southernmost documented occurrence (verified by material evidence) for the Atlantic coast of North America. A sighting of the fulmar from Mt. Pleasant, South Carolina, in March 1978 has not been verified (Post and Gauthreaux 1989) nor accepted by the SC records committee, although it has been cited in several publications (Lee and Booth 1979; Clapp *et al.* 1982, Haney 1983, Harrison 1983).

This cold water pelagic species was unknown in the southeastern United States before the 1970s. It has undergone a population growth and range expansion in this century (Fisher 1952, Palmer 1963, Lockley 1974), which has been accompanied by an increase in number of reports from waters south of Cape Hatteras. The extension of its range southward may be related to the growth of commercial fisheries, as the fulmar's diet includes fish offal (Palmer 1962). It was first reported in North Carolina in 1973, when an injured bird (which died in captivity and was discarded), was found at Pea Island, Dare County (Lee and Booth 1979). The first North Carolina specimens were collected in 1978, one in May and two in October. Lee and Booth (1979) reported five other sightings during 1976-1978. An additional bird was collected in April 1979, and at least 15 were seen off North Carolina during the same month that year (Lee and Rowlett 1979). Platania *et al.* (1986) reported that 20 North Carolina specimens had been collected for physiological studies during 1978-1982.

The fulmar was first seen off Georgia on 21 February 1983, about 137 km east of St. Catherine's Island, on the middle continual shelf (160 m depth; Haney 1983). Another was seen on 8 February 1984 on the outer continental shelf (Haney *et al.* 1986). In addition, Haney (1986) lists a total of five sightings from the middle continental shelf of Georgia. As of 1993, the species had not been reported from Florida (Stevenson and Anderson 1994).

Considering the data from adjacent states, it is likely that Northern Fulmars are more common off South Carolina than the one verified record indicates. In comparison to North Carolina and Georgia, relatively little information has been published concerning the occurrence of pelagic birds off South Carolina.

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CBC Rare Bird Alert
(704) 332-BIRD

Red-billed Tropicbird Salvaged in South Carolina: First Specimen for State

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The Red-billed Tropicbird (*Phaethon aethereus*) is a pantropical species, which in the western Atlantic breeds only as far north as Culebra and Vieques, off the east coast of Puerto Rico (American Ornithologists' Union 1998). It has rarely been recorded on the north Atlantic coast. The first specimen for the continental eastern North America was collected on 10 June 1963 at Jamaica Bay, New York (Bull 1964). In the next 30 years, an additional five specimens were taken, one from Rhode Island, two from Florida, and two (plus a photograph) from North Carolina (Lee *et al.* 1981; Stevenson and Anderson 1994). In addition, eight unpublished Florida sightings are mentioned by Robertson and Woolfenden (1992), although Stevenson and Anderson (1994) apparently accept only one sight report from Florida. One unpublished 1988 sighting exists for South Carolina (see below).

On 14 October 1995, Alice Hope found a live Red-billed Tropicbird on the front beach at Folly Island, Charleston County, South Carolina. She took the bird to the Sea Island Vet Clinic, where it died the next day.

The bird was prepared as a study skin (ChM 96.16.006), with the left wing detached and extended. It is an adult male (testes size, left: 6.5 x 5.9 mm; right: 4.6 x 4.6 mm). In the fresh specimen, the base of the mandible was salmon (color 106 of Smithe), grading into geranium (12) distally; the remainder of the culmen was spectrum red (11). A red bill is characteristic of adult *aethereus*. It was very emaciated (mass, 402 g), and had no subcutaneous fat. Apparently, it had been unable to fly due to an injury of the right wing.

The measurements of the fresh carcass were as follows: wing length (flat): 302 mm; wing span: 99.5 cm; total length, including streamers: 63.2 cm; length of longest streamer: 30.9 cm; culmen from base of skull: 59.9 mm; depth: 22.5 mm; width: 17.5 mm.

The bird had a light molt on the upper breast and lower flanks. Some secondaries and tertials were coming in. The tail was undergoing an asymmetric molt. Rectrix right 1 was fully grown and in sheath; right 2 was 1/10 grown, also in sheath. Rectrix left 5 was fully grown, but also in sheath.

A previous report of the Red-billed Tropicbird exists for South Carolina. One was photographed by Scott 93 km SSE of Charleston (water depth, 46 m) on 19 May 1988. The photographs taken by Scott in 1988 were inadvertently misplaced by a researcher to whom they had been submitted for verification. Fortunately, Forsythe and Worthington had examined the photograph and verified the identification.

The specimen described here therefore constitutes the only documented report for South Carolina and is the eighth or ninth (pending retrieval of the misplaced 1988 photographs) record for eastern continental North America. The range of dates of verified occurrence on the Atlantic coast is now 6 May to 14 October. Interestingly, the other six birds which were sexed were all females. This appears to be the first male specimen collected on the east coast.

Despite the paucity of records for the Red-billed Tropicbird on the Atlantic coast, Lee *et al.* (1981) suggest that it may occur more frequently than generally realized. Recent research (Lee and Booth 1979; Haney 1986a, b; Lee 1986) demonstrates that seabirds congregate at nutrient-rich upwellings associated with Gulf Stream fronts and eddies, usually 100 to 200 km offshore. Lee *et al.* (1981) attribute the supposed rarity of this species to the difficulty of reaching the offshore habitats where it normally occurs.

Acknowledgments

We thank Alice Hope for attempting to save the live bird and Jean Pfaff, of the Sea Island Vet Clinic, for salvaging the specimen.

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White-winged Crossbill Observed in Richland County, South Carolina: First Record for South Carolina

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On the morning of 3 April 1996, at about 0820 hours, Carter and Eastman noticed an unusual finch at one of their backyard feeders, about 6 meters from their house, which is in a residential neighborhood of the city of Columbia, Richland County, South Carolina. The bird was about the size of a nearby female Purple Finch (Carpodacus purpureus) and slightly larger than nearby House Finches (Carpodacus mexicanus) and American Goldfinches (Carduelis tristis). The bird was feeding on sunflower seeds. The bird was generally a light brown in color, with a hint of yellow brown underneath. It had faint streaking (darker brown) both above and below. There was an indistinct broad eyeline above the eye, lighter brown in color. The most striking plumage feature was the presence of two very bold wing bars. The upper wing bar was quite broad, almost a wing patch. It was at least a centimeter wide. The bill was stubby, with incompletely crossed mandibles.

Carter and Eastman had the bird under observation for about a minute as it fed at a tube sunflower feeder. Then the bird flew up into a nearby white pine and they lost sight of it. Carter and Eastman immediately identified the bird as a White-winged Crossbill (Loxia leucoptera). They saw all of the expected field marks of a juvenile White-winged Crossbill. There were no variations from expected field marks.

After calling several other birders, Carter had to go to work, but Eastman was around long enough to observe the bird again at about 0930 hours for several minutes. During this period of observation Eastman obtained several 35 mm slide pictures (which show "a bird") and also several seconds of HI8 videotape. This HI8 video was dubbed to VHS and submitted to the South Carolina Bird Records Committee. The video is poor, but if it is examined frame by frame it is possible to discern white wing bars and almost crossed mandibles. The bird was silent throughout the period of observation.

The almost crossed mandibles eliminate all non-crossbill finches, with the possible exception of a diseased individual who might have deformed mandibles. Eliminating Red Crossbill (*Loxia curvirostra*) is a bit more tricky. While it is possible that an immature or female Red Crossbill might have narrow, indistinct wing bars, the bird in question had very broad, bold white wingbars, which eliminate all other species of crossbill.

A mob of birders visited the Carter and Eastman back deck later in the day. A few were lucky enough to be present when the bird returned to the feeder. Tom Hankins, Lex Glover, and Steve Patterson observed the crossbill for about 10 minutes at about 1030 hours. Bob Maxwell and Barbara Maxwell watched it for about 10 minutes at about 1530 hours. This was the last sighting of this bird.

The South Carolina Bird Records Committee has accepted this sighting, based on the video record and observers' notes, as the first confirmed sighting of White-winged Crossbill in South Carolina. The species had been on the Hypothetical List on the basis of an unsubstantiated sighting in the Cape Romain area on 20 December 1947 (Post and Gauthreaux 1989:70).

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Briefs for the Files

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(All Dates Winter 1997 - 1998)

I rely in part on sightings reported in Carolinabirds. Please don't, however, rely on me to pick up your sightings from Carolinabirds. Instead, please also send your sightings directly to me.

RED-THROATED LOON: One was a good find on the So. Lake Norman, NC, CBC Dec. 21 (David Wright *et al.*).

PACIFIC LOON: There were two reports of this rare loon. One was found at Wrightsville Beach, NC, on the Wilmington CBC Jan. 3 (Derb Carter), and one was off S. Topsail Island, NC, Jan. 22 (Nell Moore).

COMMON LOON: Good counts of Commons included 87 at Roanoke Rapids Lake, NC Feb. 1 (Ricky Davis) and an impressive 8,000+ were seen flying north past Cape Hatteras point, NC Feb. 1 (Haven Wiley, Jeremy Hyman, *et al.*).

HORNED GREBE: An excellent inland count was the 165 at Roanoke Rapids Lake, NC Feb. 1 (Ricky Davis).

RED-NECKED GREBE: North Carolina had the only sightings of this grebe during the winter. Individuals were found at Kerr Lake, Vance County, Dec. 7 (*fide* Taylor Piephoff), Morehead City Dec. 21 (Harry LeGrand), Ocracoke Island Jan. 2 (Paul Sykes), Jordan Lake Jan 31 (Les Todd), and at Southport from Dec. 24 until at least Feb. 10 (Barbara Gearhart, m. ob.).

EARED GREBE: This species is definitely annual in the Carolinas now. Some of the more noteworthy reports included up to three at the usual Goldsboro Wastewater Treatment Plant Feb. 12 (Nell Moore), up to two at the Savannah Spoil Site, Jasper County, SC, during the winter (Steve Calver, Tim Kalbach, Van Atkins, Lex Glover *et al.*), two at Cape Hatteras, NC, Dec. 26 (Lex Glover, Chris Eley), one on Lake Norman, NC, Dec. 21 (David Wright *et al.*), and one on Jordan Lake Jan. 4 (Henry and Elizabeth Link).

NORTHERN FULMAR: A good count of 74 was had on the pelagic trip out of Oregon Inlet, NC, Jan. 24 (Brian Patteson *et al.*).

MANX SHEARWATER: Twelve was an excellent one-day total on the pelagic trip from Oregon Inlet, NC, Jan. 24 (Brian Patteson *et al.*).
NORTHERN GANNET: Reports of this species away from the inshore ocean waters are always noteworthy. This winter, eight were on Pamlico Sound in the Lake Mattamuskeet, NC, CBC circle Dec. 28 (*fide* Allen Bryan), and 20 were on the Neuse River during the New Bern, NC, CBC Dec. 22 (*fide* Wade Fuller).
AMERICAN WHITE PELICAN: The only report was of one seen near Huntington Beach State Park, SC, during the Carolina Bird Club meeting Jan. 29.
BROWN PELICAN: The immature found at Falls Lake, NC, during November was last seen there Dec. 6, as noted by Ben Steere and John Frederick.
ANHINGA: Inland winter reports included two on the Raven Rock State Park, NC, CBC Dec. 21 (Paul Hart, Scott Hartley, Dick Holbrook), one on the New Bern, NC, CBC Dec. 22 (John Fussell), one in Pitt County, NC, Jan. 4 (Brad Carlson), one in Richland County, SC, Jan. 26 (Lex Glover), and two in Jacksonville, NC, during January (*fide* Taylor Piephoff).
LITTLE BLUE HERON: Very rare inland during the winter, one was a good find at Santee NWR, SC, Jan. 3 (Dennis Forsythe *et al.*).
TRICOLORED HERON: Also unusual inland in winter was a Tricolored along the west side of Lake Moultrie, Berkeley County, SC, Jan. 4 (Lex Glover).
YELLOW-CROWNED NIGHT-HERON: Amazing was the discovery of an adult Yellow-crowned in Winston-Salem, NC, during the first week of January (*fide* Ramona Snavely). This individual provided not only a first local winter report, but was probably the first inland winter report for anywhere in the Carolinas!
GREEN HERON: One was a good find on the Bodie-Pea Islands, NC, CBC Dec. 29 (*fide* Paul Sykes).
GREAT EGRET: Noteworthy inland reports included one on the Wayne County, NC, CBC Dec. 20 (*fide* Eric Dean), one on the Clemson, SC, CBC Dec. 20 (Steve Wagner, Steve Lohr, David Mizrahi), and one near Zebulon, NC, Jan. 8 (Ricky Davis).
WHITE IBIS: An excellent inland total for winter was the 12 found on the Santee NWR, SC, CBC Jan. 3 (*fide* Lex Glover).
GLOSSY IBIS: Single individuals (*Plegadis* sp.) were found near Beaufort, NC, Dec. 25 and at Lake Mattamuskeet, NC, Dec. 6 (John Fussell), and on the Southport, NC, CBC Jan 4 (Ricky Davis). Eclipsing these was the unprecedented count of 480 coming into a roost near Bear Island, SC, Jan. 29

(Will Post). No doubt the warm winter was somehow responsible for this unusual winter count.

FULVOUS WHISTLING-DUCK: Two were at Savannah NWR, SC, from late January until early March (Mark Welford, Lex Glover, Steve Calver, sev. ob). This species has been hard to come by in recent years.

TUNDRA SWAN: A flock with at least 382 birds was counted at Pon Pon Plantation, Colleton County, SC, Feb. 18 (Will Post). This was probably a record one-day count for the species in South Carolina.

GREATER WHITE-FRONTED GOOSE: One was at Pea Island, NC, Dec. 31 (Harry and George Armistead, John Fussell) and up to three were at Santee NWR, SC, during January and February (Lex Glover, sev. ob.).

ROSS' GOOSE: Pungo NWR, NC, once again hosted several this winter. Four were found there Jan. 31 (Haven Wiley, Jeremy Hyman *et al.*).

BRANT: One seen coming in to roost on Lake Mattamuskeet, NC, Dec. 12 (Susan Campbell) provided a rare sighting away from the usual coastal locations.

CINNAMON TEAL: This species continued its recent string of sightings in the Carolinas. One was back at Bodie Island, NC, Lighthouse pond Dec. 26 until late January (Gail Lankford, Lex Glover, Chris Eley, m. ob.) for the second year in a row. Also one was at the Savannah Spoil Site, SC, during February (Steve Calver, Tim Kalbach, sev. ob.).

EURASIAN WIGEON: One was on the Lake Mattamuskeet, NC, CBC Dec. 28 (Ricky Davis, John Stanton, Derb Carter), and the male returned to the small pond near Lake Wheeler, Wake County, NC, again this winter Jan. 13 (Susan Campbell *et al.*).

COMMON EIDER: This species was found in the Carolinas in normal numbers this winter. The most interesting reports involved an immature at Oregon Inlet, NC, throughout the whole winter (Doug DeNeve *et al.*, m. ob.), an adult male there Dec. 5 (Doug DeNeve *et al.*), and an immature at Beaufort Inlet, NC, Jan. 17 (*fide* John Fussell).

OLDSQUAW: Reports away from the usual Pamlico Sound, NC, wintering area included one at Roanoke Rapids Lake, NC, Dec. 14 (Ricky Davis), one on the Wayne County, NC, CBC Dec. 20 (*fide* Eric Dean), one on Lake Atagahi, Transylvania County, NC, Feb. 15-17 (Dick Blee, sev. ob.), and a good count of eight near Sullivan's Island, SC, Feb. 28 (Mike Bernard).

SURF SCOTER: The only inland scoter report was of one female Surf at Jordan Lake, NC, Dec. 26 (Harry LeGrand, Les Todd).

COMMON MERGANSER: Reports included two at Roanoke Rapids Lake, NC, Dec. 14 (Ricky Davis), one at Lake Wheeler on the Raleigh, NC, CBC

Dec. 20 (Kent Fiala, Will Cook), one on the Durham, NC, CBC Dec. 21 (*fide* Mike Schultz), one east of Greenville, NC, Feb. 8 (John Wright), and an adult male in eastern Edgecombe County, NC, Feb. 8 (Ricky Davis).

BLACK VULTURE: An impressive roost of vultures contained at least 650 Blacks near Edgefield, SC, Jan. 24, as noted by Will Post.

OSPREY: Interesting winter sightings were of single birds at Cape Hatteras, NC, Dec. 30 (Harry LeGrand) and Feb. 15 (Les Todd, Chris Eley, Pat Moore), and one south of Fayetteville, NC, Dec. 21 (Hal Broadfoot *et al.*).

GOLDEN EAGLE: Probable late migrants included single birds at Mahogany Rock, NC, Dec. 1 (*fide* Jim Keighton) and one at Ivestor Gap, Haywood County, NC, Dec. 17 (*fide* Norma Siebenheller). Two wintering immatures were at Lake Mattamuskeet, NC, Dec. 28 (Derb Carter, Ricky Davis).

PEREGRINE FALCON: Inland winter reports included singles on the So. Lake Norman, NC, CBC Dec. 21 (*fide* Taylor Piephoff), the Southern Pines, NC, CBC Dec. 21 (Dick Burk), and the Santee NWR, SC, CBC Jan. 3 (Lex Glover *et al.*).

SANDHILL CRANE: There were several sightings in the western portions of the Carolinas this winter. Three were near Townville, SC, during most of December (Sid Gauthreaux, Carroll Belser, Lex Glover, Pete Worthington), one was in the Hooper Lane area of Henderson County, NC, Jan. 9 (Wayne Forsythe, Marilyn Westphal) until at least Feb. 8 (Forsythe), one was in Brevard, NC, Jan. 10-17 (Bill and Norma Siebenheller, sev. ob.), and two were seen flying south over Jackson Park, Hendersonville, NC, Feb 8 (Wayne Forsythe).

WILSON'S PLOVER: A good winter find was one Wilson's at Fort Fisher, NC, Jan. 4 (John Fussell).

PIPING PLOVER: The 18 Pipings at Bird Shoal, Beaufort, NC, Dec. 17 and 21 (John Fussell, Sam Cooper, Kevin Markham) provided the best winter count there since 1987.

AMERICAN AVOCET: Huge numbers of Avocets were again present at the Savannah Spoil Site, SC. The best one-day total this winter was 971 on Jan. 29 (Steve Calver). This site easily has the biggest population in the Carolinas.

LESSER YELLOWLEGS: The Savannah Spoil Site was also home to an amazing number of Lessers. Large numbers were present all winter with the peak count being 3,062 on Feb. 25 (Steve Calver). This was undoubtedly one of the highest winter totals ever for the Carolinas.

SPOTTED SANDPIPER: Spotteds were found on several CBC's this winter. Singles were at Morehead City, NC, Dec. 21 (John Wright, Sam Cooper, Kevin

Markham, Ricky Davis), Spartanburg, SC, Jan. 2 (*fide* Matthew Campbell), and Santee NWR, SC, Jan. 3 (*fide* Lex Glover).

MARBLED GODWIT: A locally good count was had near Beaufort, NC, on the Morehead City CBC Dec. 21 (Eric Dean, Gene Howe).

WESTERN SANDPIPER: Two found on the Durham, NC, CBC Dec. 21 (Doug Shadwick) were quite rare for an inland winter report.

LEAST SANDPIPER: Good winter counts included 45 at Pea Island, NC, Jan. 25 (Harry LeGrand *et al.*), 24 in Aiken County, SC, Dec. 27 (Anne Waters), and two on the Santee NWR, SC, CBC Jan. 3 (*fide* Lex Glover).

DUNLIN: One was a good find on the Wayne County, NC, CBC Dec. 20 (*fide* Eric Dean).

STILT SANDPIPER: The only known wintering location for this species in the Carolinas is the Savannah Spoil Site in Jasper County, SC. This year 35 were counted Dec. 16, with numbers rising to 142 on Dec. 29 and falling to 57 by Feb. 18 (Steve Calver).

GREAT SKUA: One was seen on the pelagic trip out of Oregon Inlet, NC, Jan. 24 (Brian Patteson *et al.*) for the only winter sighting.

LAUGHING GULL: A very rare inland winter sighting was provided by one on the Wayne County, NC, CBC Dec. 20 (*fide* Eric Dean).

LITTLE GULL: One in the Cape Hatteras, NC, area Feb. 14 (Derb Carter, Harry LeGrand) was not unexpected; but an adult off of N. Myrtle Beach, SC, Feb. 20 (Andreas Kristensen) was considerably more noteworthy for that state.

BLACK-HEADED GULL: An adult at Huntington Beach State Park, SC, Jan. 30 (Pete Worthington, Jack Peachey, Irwin Pitts) provided a rare bird for South Carolina.

CALIFORNIA GULL: One was again present at Cape Hatteras, NC, this winter. It was present from late December through February (Lex Glover, Chris Eley, Pat Moore, m. ob.). This was the fourth straight winter that at least one individual has been present.

THAYER'S GULL: The only report was of one at Cape Hatteras, NC, Dec. 29 (Derb Carter).

ICELAND GULL: Apart from the usual handful at Cape Hatteras, NC, Iceland reports included two on the Morehead City, NC, CBC Dec. 21(Mike Tove, John Fussell *et al.*), and an adult and immature at Huntington Beach State Park, SC, Jan. 30-Feb. 1 (Carolina Bird Club meeting participants).

LESSER BLACK-BACKED GULL: This species continues to increase in the Carolinas, and the noteworthy reports now mostly include the increasing number of inland sightings. One was locally unusual on the Wayne County, NC, CBC Dec. 20 (*fide* Eric Dean), but it was easily outclassed by the amazing numbers in the Raleigh, NC, area. Frequent checks of the new Raleigh Landfill and nearby Wastewater Treatment Plant during February yielded at least seven individuals: four adults, one sub-adult, and two immatures (Bob Hader, Jim Mulholland, Clyde Smith, Harry LeGrand, Derb Carter).

GLAUCOUS GULL: As usual there were several found along the Outer Banks of North Carolina this winter. Some of the more interesting reports from other areas included a first-winter bird on the Raleigh, NC, CBC Dec. 20 (Derb Carter), one at Huntington Beach State Park, SC, Jan. 11 (*fide* Taylor Piephoff), one at Myrtle Beach, SC, Jan. 31 (Carolina Bird Club meeting participants), and one at Southport, NC, Jan. 27 (Mary McDavit).

GREAT BLACK-BACKED GULL: This species is also increasing as an inland winter visitor. Unprecedented numbers were found at the new landfill and nearby wastewater treatment plant in Raleigh, NC. In early February up to 19 different individuals (four adults, 15 immatures) were found (Bob Hader, Jim Mulholland, Clyde Smith, Harry LeGrand, Derb Carter). In South Carolina, four were at the north end of Lake Moultrie, Berkeley County Jan. 29 (Will Post, Ed Rice), possibly being the farthest inland for that state.

BLACK-LEGGED KITTIWAKE: The pelagic trip out of Oregon Inlet, NC, Jan. 24 had a good count of 111 (Brian Patteson *et al.*). Much less common are the land based sightings. From one to two were present at Cape Hatteras, NC, from mid December until mid February (Brad Carlson, Jamie Glydon, Les Todd, Chris Eley, Pat Moore, Derb Carter, Harry LeGrand, sev. ob.). One was seen in the Murrells's Inlet, SC, area Feb. 10-15, as noted by Andreas Kristensen, Jack Peachey, Phil Turner, and Tim Kalbach.

RAZORBILL: The only report was of three on the Jan. 24 pelagic trip out of Oregon Inlet, NC, (Brian Patteson *et al.*).

MURRE Sp.: Two murres were seen past the breakers off of Fort Fisher, NC, Feb. 14, as noted by Nell Moore and Roselyn Mullin. These were most likely Thick-billeds, but certain field marks were not observed to be more sure of the exact species. Anyway, a sighting of murres is always noteworthy, especially in an off-year for acids!

WHITE-WINGED DOVE: One was found at the Caswell Golf Course on the Southport, NC, CBC Jan. 4 (Harry LeGrand), providing possibly the first CBC record of this species in the Carolinas.

COMMON GROUND-DOVE: One was a good find on the Savannah River Site, SC, CBC Dec. 19 (Steve Wagner, I.L. Brisbin, Anne Waters).

EURASIAN COLLARED-DOVE: A colony of up to six was seen at Beaufort, NC, on the Morehead City CBC Dec. 21 (Sally McClure, *fide* John

Fussell). It also seems that this colony has been present for a couple of years, but only recently was brought to light.

SNOWY OWL: An immature (probably female) was photographed at the north end of Masonboro Island across from Wrightsville Beach, NC, Feb. 7 (Trevis Karper), for one of the few reports of this species in the Carolinas this decade. As is frustratingly customary with the species, it was apparently on the move and was not relocated.

NORTHERN SAW-WHET OWL: An adult provided some excitement Dec. 15 at a Kernersville, NC, elementary school by perching in a bush near a door all day (Bob Chamberlain, *fide* Ramona Snavely). It seems that just about everyone at the school got a look at the tame, roosting owl. Another sighting was one "hunting at a feeder" in Boone, NC, Dec. 30 (*fide* Matthew Rowe).

NIGHTHAWK Sp.: A nighthawk, unfortunately not identified to species, was seen at Cape Hatteras, NC, on the absurdly early date of Feb. 5 (Marcia Lyons).

WHIP-POOR-WILL: This species was on two CBC's this year; one near Wilmington, NC, Jan. 3 (Greg Massey) and one near Southport, NC, Jan. 4 (Harry LeGrand).

SWIFT Sp.: A very early swift was seen at the Savannah Spoil Site, SC, Feb. 21 as it flew across the river into Georgia (Lex Glover, Mike Turner, Steve Patterson). No distinguishing field marks were observed, so the identity of this swift remains a mystery. Being almost a month early for a spring migrant, it could easily have been something other than a Chimney Swift.

HUMMINGBIRDS: Distribution of wintering hummingbirds in the Carolinas is starting to take shape as the yearly observations continue to increase. It seems that Archilochus types dominate along the immediate coast and Selasphorus types dominate inland. Bob Sargent banded eight Ruby-throateds in coastal North Carolina, three Rufous in the Charlotte area, and two Rufous in Brunswick County. Also of note was the adult male Ruby-throated at a Morehead City, NC, feeder this winter (*fide* John Fussell), a rarely seen plumage in winter!

TREE SWALLOW: Three were good finds inland on the Santee NWR, SC, CBC Jan. 3 (Bob Wood *et al.*). And an unusually large flock for the winter was seen near Lake Phelps, NC, Jan. 11, where an estimated 10,000 were feeding over the fields (Ricky Davis).

HORNED LARK: Three on the Wilmington, NC, CBC Jan. 3 (Greg Massey) were locally rare and unusual.

COMMON RAVEN: Downtown Winston-Salem, NC, once again had nesting ravens where a nest with young was seen Feb. 15 (Reggie Burt, Ramona Snavely).

FISH CROW: Unusual inland in winter were two on the Aiken, SC, CBC Dec. 24 (Anne Waters).

WOOD THRUSH: One was well-described from the Spartanburg, SC, CBC Jan. 2 (Mac Shealy, *fide* Lyle Campbell). When will one of these winter thrushes get photographed, thereby making believers out of the skeptics?!

NASHVILLE WARBLER: Nashville Warbler is a rare winter visitor at best in the Carolinas. Thus of note was the amazing report of three different individuals found on the Lake Mattamuskeet, NC, CBC Dec. 28 (Allen Bryan, Harry LeGrand, Wayne Irvin). This was undoubtedly a record one-day total for the Carolinas in winter.

YELLOW WARBLER: Also quite rare in winter, single Yellows were found on the Lake Mattamuskeet, NC, CBC Dec. 28 (*fide* Allen Bryan) and the Spartanburg, SC, CBC Jan. 2 (*fide* Matthew Campbell).

BLACK-THROATED BLUE WARBLER: A male was a complete surprise at a feeder in Durham, NC, Feb. 14 (Don Bright-Smith, *fide* Will Cook). This species is almost unheard of in the middle of winter in the Carolinas, but was probably too early for a northbound migrant.

PRAIRIE WARBLER: Prairies often winter along the immediate coastal strip, but of note inland were two found on the Santee NWR, SC, CBC Jan. 3 (Perry Nugent *et al.*).

BLACK AND WHITE WARBLER: Also of note inland during the winter were two on the Raven Rock State Park, NC, CBC Dec. 21 (*fide* Paul Hart).

AMERICAN REDSTART: This species is extremely rare in the Carolinas during winter. This year a female was found on the Jordan Lake, NC, CBC Jan. 4 (Josh Rose, Les Todd, Chris Eley), and another female, the same day, was found on the Southport, NC, CBC (Taylor Piephoff, Katherine Higgins, Harriet Whitsett, Tom Ledford). The Jordan Lake bird provided the first inland winter report for North Carolina, and the Southport bird was surprisingly the second report for that count!

NORTHERN WATERTHRUSH: One was found at Pon Pon Plantation, Colleton County, SC, Feb. 19 (Will Post). Rare in winter in the Carolinas, this individual provided one of fewer than 10 South Carolina reports for that season.

WILSON'S WARBLER: One found on the Lake Mattamuskeet, NC, CBC Dec. 28 (*fide* Allen Bryan) provided a rare winter report.

YELLOW-BREASTED CHAT: The only winter sighting received was of one on the Morehead City, NC, CBC Dec. 21 (John Wright *et al.*).

WESTERN TANAGER: This species is almost annual in its occurrence in the Carolinas. This winter one was at a feeder in Long Beach, NC, during the month of February (Mary McDavit, Carolyn Bush).

INDIGO BUNTING: Lingering Indigos included one banded at Mayesville, SC, Dec. 5 (Evelyn Dabbs) and one on the Morehead City, NC, CBC Dec. 21 (John Wright).

PAINTED BUNTING: This species has become a regular winter resident along the immediate coast in North Carolina. This year at least five were at a feeder in Buxton (Chuck Hebenstreit), three were on the Morehead City CBC Dec. 21 (*fide* John Fussell), and four were on the Southport CBC Jan. 4 (Ricky Davis, Taylor Piephoff *et al.*).

DICKCISSEL: The only winter report was of a female near the Cape Hatteras, NC, Lighthouse Feb. 15 (Les Todd, Chris Eley).

BACHMAN'S SPARROW: Winter sightings of this secretive species are always noteworthy. One was found inland on the Savannah River Site, SC, CBC Dec 19 (Anne Waters), one was on the Southport, NC, CBC Jan. 4 (Sam Cooper), and one was in Jasper County, SC, Feb. 21 (Lex Glover, Mike Turner).

AMERICAN TREE SPARROW: One was a good find on the Pee Dee NWR, NC, CBC Jan. 3 (Judy Walker). Sightings of this less than annual visitor are always noteworthy in the Carolinas.

CLAY-COLORED SPARROW: The only winter sightings included one near New Bern, NC, Dec. 11 (Bob Holmes, Nell Moore), two at the same location Dec. 22 (Wade Fuller), and one near Morehead City, NC, Dec. 21 (John Wright).

LARK SPARROW: Winter reports included one at Harker's Island, NC, Dec. 5 (Nell Moore), one at Oregon Inlet, NC, Dec. 15 (*fide* Taylor Piephoff), and an astounding total of five on the Pee Dee NWR, NC, CBC Jan. 3 (Judy Walker). The latter report probably represents a record total for the species during the winter.

GRASSHOPPER SPARROW: One was found near New Bern, NC, Dec. 11 and 22 (Bob Holmes, Nell Moore, Wade Fuller), and one was on the Greenville, SC, CBC Jan. 3 (*fide* Len Kopka).

HENSLOW'S SPARROW: The only winter reports of this secretive sparrow included one on the Pee Dee NWR, NC, CBC Jan. 3 (Judy Walker) and at least three near Tillman, SC, Jan. 2 and Feb. 15 (Tim Kalbach).

LINCOLN'S SPARROW: Numbers of wintering Lincoln's Sparrows in the Carolinas continue to decrease. This winter the only reports received were of single birds on the Pee Dee NWR, NC, CBC Jan. 3 (Judy Walker), the Greenville, SC, CBC Jan. 3 (*fide* Len Kopka), and in Jasper County, SC, Feb. 21 (Lex Glover, Mike Turner).

DARK-EYED JUNCO: An adult male of the "Oregon" form was found on the Spartanburg, SC, CBC Jan. 3 (Tim Brown, *fide* Lyle Campbell). This well-seen and described bird represented one of the few recent reports of this western form in the Carolinas.

SMITH'S LONGSPUR: North Carolina's fourth Smith's Longspur was one found on the Pee Dee NWR CBC Jan. 3 (Judy Walker). The bird was not relocated later, and one wonders how long it had been present before being discovered.

LAPLAND LONGSPUR: Reports this winter included three near Townville, SC, Dec. 20 (Lex Glover, Pete Worthington, Sid Gauthreaux, Carroll Belser); three or four at Hooper Lane, Henderson County, NC, Dec. 21 (Wayne Forsythe, Simon Thompson, Dick Blee); one at Hooper Lane Jan. 12 (Rick Knight); up to five at Cape Hatteras, NC, Jan. 23 (Bob Holmes, Wade Fuller, Rich Boyd); and one in Pitt County, NC, Jan. 25 (Brad Carlson *et al.*).

SNOW BUNTING: Compared to last winter, Snow Buntings were in short supply. Sightings included three at the Oregon Inlet, NC, jetty Dec. 15 (*fide* Taylor Piephoff) and one on Bird Shoal near Beaufort, NC, Dec. 17 and 21 (John Fussell, Sam Cooper *et al.*).

BREWER'S BLACKBIRD: The only Brewer's found were seven near Allendale, SC, Dec. 7 (Robin Carter, Caroline Eastman) and six on the So. Lake Norman, NC, CBC Dec. 21 (*fide* Taylor Piephoff).

BOAT-TAILED GRACKLE: Three were "inland" on the western side of Lake Moultrie, Berkeley County, SC, Jan. 4 (Lex Glover). This area is about the only non-coastal site the species can be found in the Carolinas.

BALTIMORE ORIOLE: One was unusual at Lake Mattamuskeet, NC, Dec. 18 (Brad Carlson, Jamie Glydon). Also an oriole caused some excitement at Magnolia Gardens, Charleston, SC, during February and early March. The bird, a very pale female, was initially identified as a Bullock's. After more observation and much debate, it was felt that the individual was just an abnormally pale Baltimore. This occurrence points out the difficulty in separating very closely related species and that observers must consider all the possibilities in identifying certain plumages.

RED CROSSBILL: A flock of 18 on the Stone Mt., NC, CBC Jan. 3 (Jim Keighton) was a good report from the northwestern part of the state. Also five on the Raleigh, NC, CBC Dec. 20 (John Gerwin *et al.*) and one at Whispering Pines, NC, Feb. 2 (Susan Campbell) provided noteworthy sightings away from the mountains.

WINTER FINCHES: Winter finches were present across the Carolinas this year in small, localized numbers. Many observers mentioned having small numbers of Purple Finches, Pine Siskins, and Evening Grosbeaks all winter. Others lamented that the birds were practically non-existent in their areas. The only sizable flock of any finch was the 98 Purples found in one area near Wilington, McCormick County, SC, Dec. 22 (Lex Glover, Steve Patterson). As for Evening Grosbeaks, numbers of 50 or less were the rule, and Pine Siskin numbers were even lower.

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Book Review: *Atlas of the Breeding Birds of Tennessee*

C. P. Nicholson. 1997. University of Tennessee Press. 426 pp. $45.00 U.S. (hard cover).

This book is the latest in a series of first class state breeding bird atlas publications that have come off the presses in recent years. It is similar in format and quality to products from Iowa, Kentucky, Michigan, Missouri, Ohio, New York, and Vermont.

Species accounts and maps showing confirmed, probable, and possible nesting distributions, based on field work from 1986-1991, are presented for each of the 170 confirmed breeding species in Tennessee. Like most states, Tennessee used 1/6 of a 7.5 minute topographic map for the survey block.

The accounts give detailed reviews of nesting distribution, status, and population trends within the state, as well as a summary of breeding biology. One criticism of Atlas projects has been the absence of abundance information, a parameter just as important as distribution. Tennessee anticipated this by conducting “miniroutes,” an abbreviated version of the U.S. Breeding Bird Survey, in each Atlas survey block, and producing contour abundance maps for those species with sufficient data.

This book contains much more than abundance and distribution data. It gives detailed information on the history of Tennessee ornithology, the landscapes and habitats of the state, including historical changes, a review of historic changes in Tennessee birds, and conservation efforts on their behalf. An appendix summarizes all that is known about breeding chronology (nest with eggs, nests with young, and fledgling periods) of Tennessee birds, and the literature cited section has 26 pages of more than 650 references.

I had only a couple of small criticisms. Layouts for most Atlas books usually feature a one page species account with the distribution map on the opposite page. The species accounts and maps for the Tennessee Atlas ran continuously without page breaks. It was a little disconcerting to me, for example, that maps for the Cerulean Warbler were on the same page as the introduction to the Black-and-White Warbler account. Also the quality of the line drawings was inconsistent and ranged from poor to good.

The Atlas of the Breeding Birds of Tennessee will become *the* reference for at least a generation for all serious amateur and professional ornithologists interested in Tennessee breeding bird biology. It will also be a standard for the rest of us in the Southeast with Atlas projects to strive for.

John Cely, South Carolina Department of Natural Resources.

John Cely was the state coordinator for the South Carolina Breeding Bird Atlas Project (1988-1995) and promises to have all atlas maps for the state finished by the end of this year. Ed.

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General Field Notes

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Articles

American Kestrel Use of Pine Regeneration Stands in South Carolina. *Amanda Allen Beheler and John B. Dunning, Jr.* 173

1997 Report of the North Carolina Bird Records Committee. *Harry E. LeGrand, Jr., Chairman, Derb S. Carter, Jr., Samuel Cooper, Richard J. Davis, John O. Fussell, III, Simon R. B. Thompson, and Michael H. Tove* 180

General Field Notes

First Record of Lazuli Bunting for North Carolina. *Harry E. LeGrand, Jr. and Anthony V. Ziccardi, Jr.* 183

First Record of Chestnut-collared Longspur for North Carolina. *Harry E. LeGrand, Jr.* 185

Briefs for the Files, Spring 1998 187

Index to Vol. 62 of The Chat 200

Cover (Detail of Brown Pelican) by Robert W. Buchanon, DMD, Blythewood, SC.

American Kestrel Use of Pine Regeneration Stands in South Carolina

---

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The American Kestrel (*Falco sparverius*) is widely distributed across most of the United States and is one of the most abundant of all North American raptors. Two subspecies of kestrels occur in the southeast, F. s. sparverius and the rarer *F. s. paulus*. The southern subspecies (*F. s. paulus*), often known as the Southeastern American Kestrel, has historically been documented throughout Florida, the southern half of Georgia, and southeast and central South Carolina west to Aiken County (Sprunt and Chamberlain 1949, Palmer 1988, Breen *et al.* 1995). Both subspecies have been reported in South Carolina, although *paulus* individuals are reportedly rare and their occurrence remains poorly documented throughout the state (Sprunt and Chamberlain 1949, Hunter 1990). However, Breen *et al.* (1995) and Breen and Parrish (1997) report that Southeastern American Kestrels are successfully breeding at Fort Gordon Military Base, Richmond County, and a few other localities in Georgia.

During the summer of 1995, we observed a small population of kestrels using pine regeneration stands at the Savannah River Site (SRS), a 770 km^2 Department of Energy facility in Aiken, Allendale, and Barnwell Counties, South Carolina. Although Norris (1963) described evidence of breeding kestrels at the site in 1956, and classified them as a fairly common summer and very common winter resident on the SRS in the 1950's, very little is actually known about the extent of the local kestrel population.

The U.S. Forest Service manages the SRS for timber production and conservation of biodiversity. Pine stands of various ages make up a complex landscape pattern across the entire site (Dunning *et al.* 1995). While early successional stands are ephemeral (existing only until the pines mature and form a closed canopy from 5 to 7 years of age), active clearcutting creates new openings yearly, supplying kestrels with a potentially steady source of open habitat. Declines of kestrel populations in the southern United States have been attributed to the lack of both nesting and foraging habitat (Bohall-Wood and Collopy 1986, Hunter 1990). The SRS appears to be a possible source of both of these limiting resources and offers a landscape in which to study how this species responds to timber management practices. The main objectives of this research were 1) to determine the abundance and distribution of American Kestrels during the breeding season at the Savannah River Site, and 2) to investigate possible patterns of kestrel use of pine regeneration habitat.

Study Area and Methods

During the summer of 1996, we surveyed all longleaf (*Pinus palustris*) and loblolly pine (*P. taeda*) regeneration stands ranging in age from zero (*i.e.* newly harvested stands) to three years (N = 90 stands) for the presence of American Kestrels (Table 1). Two newly harvested stands were unplanted at the time of surveying. Three survey rounds were undertaken. These surveys covered the approximate range for known breeding dates within the southeast region (Round 1: 17 May - 11 June; Round 2: 12 June - 5 July; Round 3: 9 July - 20 July). All stands were surveyed once per round. Post and Gauthreaux (1989) report that egg dates for South Carolina kestrel nests range from 7 April - 30 May. Shuford (1997) and Breen and Parrish (pers. comm.) report that kestrels in southern Georgia fledged between 10 June and 29 June in 1996 and between 10 May and 13 June in 1997.

Habitat age classes were chosen based on previous observations of kestrel use of regeneration stands (A. Allen, pers. obs.) and because, in overall aspect, these young pine stands often mimic the open fields and pastures that are well documented as kestrel habitat (Roest 1957, Bohall-Wood and Collopy 1986, Smallwood 1988). Study stands were widely distributed across the entire SRS and ranged in area from 2.4 to 48.0 ha.

Surveys were conducted in the morning (05:45-11:00 EDT), when kestrels, like other diurnal raptors, are more active. Surveyors slowly walked the perimeter of each stand, visually and aurally searching for falcons. By walking the stand edge, surveyors had a clear view of the entire stand and had an increased likelihood of discovering a perched kestrel or a nest cavity tree. Special attention was given to snags as possible breeding sites and live trees within and along the edges of stands which, as the tallest structures in the area, would be attractive perches. All snags were individually checked for possible nesting cavities. Upon finding a kestrel, exact locations were mapped and perch trees flagged. This gave us a reference point for nest searches. Sex, determined by wing and back color, and age (HY or AHY) of individuals were recorded when possible. Breeding pairs were defined when an adult male and female were resident in a single stand.

Stands with resident kestrels were revisited every one to three days through the end of July to make behavioral observations, search for nest cavities, and to ensure that all kestrels at the site were located and that individuals were not being double-counted at adjacent stands. In order to make comparisons of site and landscape characteristics which might lead to preferential use of habitat, a variety of data were collected for each stand including dominant tree species (longleaf pine, loblolly pine, unplanted), age (zero, one, two, or three years since replanting), area (ha), number of standing snags, distance to transmission power line right-of-ways, and distance to nearest occupied (*i.e.* with resident kestrels) stand.

Results

Twenty-four adult American Kestrels were located at the SRS between 17 May and 20 July 1996. Eight breeding pairs were identified, and three nest cavities were found, all located in dead pine snags. Seven fledglings were found. We feel that this is an accurate estimate of the actual population because of the intensity of surveys (over 640 man hrs.) across a wide variety of habitat types covering most of the SRS. Location of new individuals, including fledglings, was greatest during Round 2 (total number of new birds located during each round: Round 1: 9 individuals; Round 2: 18 individuals; Round 3: 4 individuals). This probably reflects the secretiveness of adults after initial courtship and during incubation early in the season. Adults were more conspicuous after the fledging of their vocal, and extremely active, young. All fledglings were located after 13 June.

Of the 90 regeneration stands surveyed, 12 had resident adult kestrels. Three kestrel locations were not associated with regeneration stands, including three adult birds found together at a complex of storage buildings. Four kestrels were repeatedly found only along transmission power line right-of-ways. The kestrels used these as foraging perches. Area of stands occupied by kestrels ranged from 9.1 to 46.8 ha. While both longleaf and loblolly stands were occupied as newly harvested stands, only longleaf stands were occupied one or two years after replanting. No three year old stands were occupied (Table 1). Two of the two year old stands with breeding pairs had also been occupied by breeding pairs during the 1995 breeding season, one year after planting (A. Allen, pers. obs.).

Occupied stands were often clustered together. Most kestrels were located within the south-central portion of the SRS. Eight occupied stands occurred in this area, and six of them within 1.5 km of each other. Another cluster of three occupied stands was located in the central part of the SRS. Of the 12 occupied stands, seven were immediately adjacent to transmission power line right-of-ways. The three nesting cavities were all within 100 m of the stand edge. Two kestrel nest trees also had active Northern Flicker (*Colaptes auratus*) nest cavities. One pair of kestrels nested and successfully fledged young from a pine snag in a newly harvested, unplanted stand directly adjacent to an inactive reactor. The kestrels from this stand were observed almost daily perching on, and hunting from, the extensive sets of power lines emerging from the abandoned reactor.

The mean number of snags per stand dropped between two year old stands and three year old stands ((x + SD total snags per stand: newly harvested (N = 31): 49.48 + 31.7; one year old (N = 2): 60.0 + 28.3; two year old (N = 32): 55.31 + 28.6; three year old (N = 25): 27.84 + 21.4). Excluding the one year old stands from analysis due to low sample size, three year old stands had significantly fewer snags than newly harvested or two year old stands (ANOVA: F = 7.29, df = 2, P = 0.001), suggesting that snags left during initial harvesting decayed and fell within this time frame.

Discussion

Previous sightings of American Kestrels indicate a small, relatively unknown resident kestrel population at SRS. C. Eldridge (pers. comm.) documented two kestrel nestlings found on the ground near two different buildings by SRS personnel during 1994, and in 1995, a single fledgling was observed being fed by adults. In the summer of 1995, during surveys of over 200 longleaf and loblolly pine stands of various ages (from 0 to >80 years after planting) for a separate study at SRS, we located only 8 kestrels, even though we actively searched for them. The 1996 population represents a significant increase in the number of American Kestrels known to reside at the Savannah River Site during the breeding season. Throughout the three months of surveys we discovered a total of 31 individuals, including at least four successful breeding pairs that produced a total of seven known fledglings. The secretiveness of breeding adults increases the difficulty in getting actual population estimates without intensive survey methods. Kestrel nest boxes placed along transmission power line right-of-ways in 1991 have failed to attract any kestrels, although they are occupied by a variety of other cavity nesting birds (A. Allen, pers. obs.).

While kestrels do utilize a variety of habitats at the SRS, including buildings and transmission power line right-of-ways, they seem to prefer young pine regeneration stands. Nine of the known kestrel sites were in longleaf pine regeneration stands that were less than three years of age. Low samples sizes and a lack of available loblolly pine regeneration stands (N = 25) in comparison to longleaf pine stands (N = 63), especially one year old stands, prevent further statistical analysis of kestrel choice of pine type; however, general trends in use can still be seen.

Managed pine stands at the SRS undergo a characteristic vegetational succession following harvest as both planted pines and understory grasses and shrubs develop. These structural changes may inhibit the suitability of older (greater than three years old) regeneration stands for kestrel occupancy. Stands immediately post harvest are generally devoid of most ground vegetation. By the next year, dominant vegetation includes broomsedge (*Andropogon virginicus*), blackberry (*Rubus* sp.), and scattered forbs and grasses. Stober (1996) reports significant differences in dominant vegetation between stands less than three years old and stands four to six years since replanting. Younger stands were dominated by grasses, forbs, young pine trees, and shrubs, while older stands were dominated by planted pines, shrubs, and deciduous trees. Young (newly harvested to two year old) pine regeneration stands appear to mimic the open fields and pastures frequently used by kestrels in other regions. Increased vegetation structure also has been correlated with an increase in insects, a prey item on which breeding kestrels often specialize (Heintzelman 1964, Palmer 1988). However, whereas increased vegetation structure may imply greater prey resources, vegetation may eventually become so dense that it impairs the ability of kestrels to locate and capture prey (Hoffman and Collopy 1988).

During the breeding season, kestrels may be limited by the availability of nesting sites (Bohall-Wood and Collopy 1986). Under current management practices, regeneration stands at the SRS are dispersed throughout the site and have an abundance of pine snags that may serve as nest cavities. Three of the known successful breeding pairs nested in snags. The structural change in the number of snags between newly harvested and three year old stands, along with an increase in vegetation density during succession from initial harvest, may reduce the window of suitability of older regeneration stands for kestrel occupancy.

Overall, the SRS supports a successful breeding population of American Kestrels. Kestrels nested and foraged in managed pine regeneration stands, which appear to have both abundant prey and nest site resources. The extensive network of transmission power line right-of-ways and relatively undisturbed reactor areas also offer a mosaic of foraging habitats and perch sites. The general trends of kestrel use of longleaf pine regeneration stands less than two years since harvest seen in 1996 warrant further investigation of those stand characteristics (especially age and species classes) which influence the suitability of pine regeneration stands for kestrel occupancy.

Acknowledgments

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1997 Report of the North Carolina Bird Records Committee

Harry E. LeGrand, Jr.,
Chairman
Derb S. Carter, Jr.
Samuel Cooper
Richard J. Davis
John O. Fussell, III
Simon R. B. Thompson
Michael H. Tove

This report enumerates the decisions of the Carolina Bird Club's North Carolina Bird Records Committee during 1997.

ACCEPTED AS VALID

The reported identification is judged to be accurate, and the bird is judged to be of wild origin. Photographs and written descriptions of all accepted records have been deposited in the N.C. Museum of Natural Sciences.

GREATER SHEARWATER (*Puffinus gravis*). One was seen in the cool waters inshore of the Gulf Stream off Cape Hatteras, Dare County, on 9 February 1997. Harry LeGrand, Brian Patteson, Ned Brinkley, and many other birders observed the bird. There is one previous winter report for the species in North Carolina, but that report has not been reviewed by the Committee. The species is already on the state's Official List.

SOOTY SHEARWATER (*Puffinus griseus*). One was seen from shore at Wrightsville Beach, New Hanover County, on 3 January 1997 by Ricky Davis. The species is already on the Official List, but this might be the first winter record for the state.

SOOTY SHEARWATER. Two or three were seen off Cape Hatteras in cool waters inshore of the Gulf Stream on 9 February 1997 by Brian Patteson, Ned Brinkley, and others. This is the second winter record for the state, closely following the record above, made a month earlier.

GROOVE-BILLED ANI (*Crotophaga sulcirostris*). One was observed by Gene Howe at Atlantic Beach, Carteret County, on 14 October 1996. This is the first record for the state. As no photograph was taken to document the record, the species is placed on the Provisional List.

ANTILLEAN NIGHTHAWK (*Chordeiles gundlachii*). One was seen, but not heard, at Cape Hatteras point, Dare County, on 23-24 May 1996. Ned Brinkley submitted both a written description and black-and-white photos. The written description was accepted, but not enough votes were received on the photos to comprise a verdict. Nonetheless, the species is already on the Accepted List, based on a description and taped recording of the call of a bird at the same location in 1994 (Chat 60:145-146). In fact, the same individual might have been involved in both records. This is the second state record.

CALLIOPE HUMMINGBIRD (*Stellula calliope*). A female Calliope was found at Betty and Frank Scott's feeder near Hampstead in Pender County. It was identified by Derb Carter on 24 February 1997 and was seen by many other birders into early March. The only photo available to the Committee was considered by the Chairman to be misrepresentative (back and breast colorations distorted by light conditions) and was not used in the voting. This is the second accepted record of Calliope Hummingbird for the state. Since the first record (Chat 61:52-53) was documented by excellent photos, the species is already on the Official List.

UNACCEPTED SIGHTING

The bird is judged to be a species other than that reported, or the bird is insufficiently documented to identification of the species reported.

YELLOW-NOSED ALBATROSS (*Diomedea chlororhynchos*). One reported flying over the surf, seen from shore on the Outer Banks in April 1997, was not accepted. Committee members called attention to several field marks described that are inconsistent with any species of albatross; a sub-adult Northern Gannet better fits the description. The statement that "Another report of Yellow-nosed Albatross is now available for North Carolina," made by David S. Lee (Chat 62:67), likely refers to this report. There are no accepted records of Yellow-nosed Albatross for the state.

YELLOW-LEGGED GULL (*Larus cachinnans*). A "yellow-legged gull" (slang for a Herring-type gull with yellow legs) was reported from the Outer Banks in February 1997, but the report was not accepted to this species. Several Committee members considered the bird to be a likely hybrid between Herring and Lesser Black-backed gulls. Yellow-legged Gull is currently on the Official List, based on an adult photographed at Cape Hatteras on 13 March 1995 (Chat 60:153-156). This latter record, however, might be re-evaluated in light of recent information on separating this species other gull species, as well as from hybrid gulls.

BLACK-CHINNED HUMMINGBIRD (*Archilochus alexandri*). An adult male hummingbird, reported as this species from the mountains during June 1991, was not accepted. The Committee was concerned that the bird was reported as being larger than a Ruby-throated Hummingbird, yet sizes of these two species should be nearly identical. In addition, males of the latter species can appear to have black/purple gorgets in poor light. The species remains on the Provisional List, with one accepted sight record.

BLACK-CHINNED HUMMINGBIRD. Two reported at a feeder on the Outer Banks in December 1996 were not accepted. One was reported as an immature male, and the other was reported as either a female or an immature male. Because of the great difficulty of identification of this species and Ruby-throated, and because other observers who viewed hummingbirds at the same feeder reported only Ruby-throateds or were confused over the birds' identities, the Committee was not convinced that Black-chinneds were present at the feeder.

EASTERN KINGBIRD (*Tyrannus tyrannus*). One reported from the Outer Banks during the winter of 1996-97 was not accepted. Although the details seemed to be consistent with the species, the details were too brief for the extreme rarity of this species in North America during the winter.

VEERY (*Catharus fuscescens*). One reported from the northern mountains during the winter of 1996-97 was not accepted. As with the Eastern Kingbird, this species does not generally occur in North America during winter. We are not aware of any previous winter reports from the state. This is the first winter report reviewed by the Committee.

UNRESOLVED.

Further consideration by the Committee is needed.

SHINY COWBIRD (*Molothrus bonariensis*). A male was reported from the Piedmont province in the fall of 1996. The report received a Send for Outside Review verdict. The species is already on the Official List, but this is the first report from the Piedmont.

Status of the North Carolina Bird List. The voting results for 1997 resulted in adding only one species to the North Carolina Bird List: Groove-billed Ani has been added to the Provisional List. The current Official List is 420 species, and the Provisional List is now 17 species.

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General Field Notes

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First Record of Lazuli Bunting for North Carolina

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At approximately 9:30 am on 22 March 1996, Ziccardi observed a bird that he identified as a first spring male or adult female Lazuli Bunting (*Passerina amoena*) at Fort Macon State Park. The bird was feeding with a mixed flock of White-throated Sparrows (*Zonotrichia albicollis*) and Song Sparrows (*Melospiza melodia*) on the ground adjacent to a greenbrier (*Smilax* sp.) hedge, between the fort and the parking lot. The bird was seen off and on until 11:10 am. It was also observed on that date by Ann Ziccardi and Randy Newman, a ranger at Fort Macon State Park.

Word of this first North Carolina report of Lazuli Bunting quickly spread. Bob Holmes observed the bunting the following day, and several dozen birders arrived at the state park on Saturday, 24 March, in hopes of observing and photographing the bird. The bunting was seen at close range, in excellent light, from 8:10 to at least 9:45 am. During this time, photos were taken by Derb Carter. Additional observers on 24 March included LeGrand, John Fussell, Ricky Davis, and John and Paula Wright. The bird remained at Fort Macon through 2 April, when last reported by Newman.

The bunting, almost certainly a first-winter male, was slightly smaller than the White-throated Sparrows. It had no streaking anywhere. Its head and back were olive-brown, with medium turquoise blue showing on the side of the head and on the throat. The breast was a light, soft orange or rust, similar to the color of a female American Robin (*Turdus migratorius*) or female Eastern Bluebird (*Sialia sialis*). The belly was white, contrasting with the light orange-rust breast. The wing had two distinct wingbars, which were dirty white or buff. The shoulder region was a bright turquoise blue. Some blue coloration was seen in most of the folded wing feathers, which were mainly dark brown. The lower back/rump was a bright turquoise, contrasting with the olive-brown back. The tail feathers were dark brownish with some blue coloration.

The bird had a pale eye-ring. Its bill was conical and finch-like; its color was flesh or pale pink.

The Lazuli Bunting breeds in the western half of North America and winters mainly from Mexico southward. It is of casual to accidental occurrence in the eastern United States. Virginia has at least two records: Newport News in 1966 and Norfolk in 1975 (Virginia Society of Ornithology 1987). South Carolina has a single record: Westminster in 1981 (LeGrand 1984). Thus, a record for North Carolina is not completely unexpected.

This is the first record of Lazuli Bunting for North Carolina. Photos taken by Carter and written descriptions by the authors have been deposited at the N.C. Museum of Natural Sciences for documentation. The N.C. Bird Records Committee accepted the photos and written descriptions and placed the species on the North Carolina Official List (North Carolina Bird Records Committee 1997).

Literature Cited

LeGrand, HE, Jr. 1984. First South Carolina record of the Lazuli Bunting. Chat 48:49-50.

North Carolina Bird Records Committee. 1997. 1996 Report of the North Carolina Bird Records Committee. Chat 61:260-264.

Virginia Society of Ornithology. 1987. Virginia's birdlife: an annotated checklist. Virginia Avifauna No. 3, The Virginia Society of Ornithology, Inc.

First Record of Chestnut-collared Longspur for North Carolina

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On 28 February 1992, a winter-plumaged Chestnut-collared Longspur (*Calcarius ornatus*) was identified in the grass and dirt parking lots at the Charlotte Motor Speedway near Harrisburg, NC, by Taylor Piephoff and several other birders from nearby Charlotte. A number of people visited the speedway over the next week to observe this bird, which was the first individual of the species ever reported for North Carolina. I was able to observe the longspur at leisure on 29 February. The vegetation was one-inch high or less, making the bird readily visible in the short grass and bare ground.

In general, the longspur, presumably a female, looked somewhat like a female House Sparrow (*Passer domesticus*). It was between one and two inches shorter in overall length than a Horned Lark (*Eremophila alpestris*) that was present for size comparison. The longspur had a pale buff or beige color on the underparts; the whitish throat was paler than the rest of the underparts. There were thin, narrow streaks at the top of the breast (giving a faint necklace appearance) and on the sides of the breast. At much of a distance, however, those streaks were essentially invisible. The upperparts were heavily streaked with dark brown to black, with buff streaks interspersed. No rufous collar was seen. The wings were dark, with three narrow and pale wingbars.

The head had a brownish cap with some pale streaking. There was a dark brown stripe through the eye and continuing beyond the eye. Another dark stripe under the eye appeared to outline a paler cheek patch. There was a dark malar stripe. Otherwise, the ground color of the face was beige or pale buff. The bill was medium-sized and conical; the color was gray or horn. The size and color of the bill did not attract attention.

Several aspects of the bird, however, were attention-getting. The tail was quite short. Triangular wedges of white at the base of the tail could be seen when the bird was in flight, leaving a dark triangle on the tail (pointed at the base and wide at the tip). The tail showed more white and appeared shorter than the tails of Lapland Longspur (*C. lapponicus*) and Smith's Longspur (*C. pictus*). Also noted in flight was a distinctive call note — a "chit-tle" call that was vaguely reminiscent of a House Sparrow call. I heard no rattle call, though the species does give a rattle call (as do other longspur species) on the wintering grounds.

The dark triangle pattern of the tail and the "chit-tle" call are characteristic of the Chestnut-collared Longspur. No other longspur species apparently gives a soft, finch-like, two-syllable call. The McCown's Longspur (*C. mccownii*) has a dark "T" on the tail instead of a dark triangle, a distinction that can be difficult to discern on flying birds. The McCown's has a noticeably large bill, and it does not give a two-syllable "chit-tle" call. Other longspurs, pipits, and sparrows that have white on the tail do not have such large amounts of white that the dark area of the tail is limited to a triangle.

The Chestnut-collared Longspur remained at the speedway into early March. It was photographed by David Wright and Mary Welty. These photos have been deposited at the N.C. Museum of Natural Sciences, as have written descriptions of the bird. The N.C. Bird Records Committee (1993) accepted both the descriptions and the photos (*Chat* 57:66); thus, the species has been placed on the Official List. The Chestnut-collared Longspur has not been reported previously from South Carolina or Georgia. Virginia has at least two records for the species -- eight birds in Roanoke on 13 April 1958 and one bird photographed at Chincoteague National Wildlife Refuge on 5 June 1977 (Virginia Society of Ornithology 1987).

Literature Cited

North Carolina Bird Records Committee. 1993. Report of the North Carolina Bird Records Committee -- 1992. Chat 57:65-68.

Virginia Society of Ornithology. 1987. Virginia's birdlife: an annotated checklist. Virginia Avifauna No. 3, The Virginia Society of Ornithology, Inc.

Carolina Bird Club Web Site
http://members/aol.com/cbirdclub

BRIEFS FOR THE FILES

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(All Dates Spring 1998)

Briefs for the Files is a seasonal collection of uncommon to rare or unusual North and South Carolina bird sightings and events which do not necessarily require a more detailed Field Note or article. Reports of your sightings are due to me the 20th of the month after the end of the previous season.

Winter = December 1-February 28, due March 20

Spring = March 1-May 31, due June 20

Summer = June 1-July 31, due August 20

Fall = August 1-November 30, due December 20

Reports can be submitted in any format, but I prefer that you type them and list the sightings according to the birds in checklist order (not according to dates or locations). If you submit your report to me through e-mail, please type your report in the message or copy it from a word processing program directly into the message. You may also attach your file to the e-mail, but some file formats are not always readable by other programs. If you attach a file to the e-mail, please tell me the program used to produce the file.

Suitable reports for the Briefs include any sightings you feel are unusual, rare, noteworthy, or just plain interesting to you in any way! It is my job to decide which reports merit inclusion in the Briefs.

Please be sure to include details of any rare or hard to identify birds.

I rely in part on sightings reported in Carolinabirds. Please don't rely on me to pick up your sightings from Carolinabirds. Instead, please also send your sightings directly to me as described above.

If I feel that your sighting warrants a Field Note, I will contact either you or the appropriate state Field Notes editor. You may, of course, submit your Field Note directly to the editor without going through me.

RED-THROATED LOON: Late migrants included one at Cape Hatteras, NC, May 31 (Ricky Davis) and one in breeding plumage at Oregon Inlet, NC, May 29 (Rick Knight).

COMMON LOON: An excellent count for the mountains was the 75 on Lake Julian, Buncombe County, NC, April 4 (Wayne Forsythe).

HORNED GREBE: One was late at the Savannah Spoil Site, Jasper County, SC, May 19 (Steve Calver).

EARED GREBE: Four were still at the Goldsboro, NC, Wastewater Treatment Plant April 18 (Ricky Davis), when two were in breeding plumage. Another one, in breeding plumage, was rare at Lake Osceola, Hendersonville, NC, March 25, as noted by Jack Hudson.

NORTHERN FULMAR: An impressive record count for the Carolinas was the 540+ seen off Hatteras, NC, March 14 (Brian Patteson *et al.*). This easily more than doubled the previous one-day totals!

HERALD PETREL: This rare but regular species was found more than usual this spring. Off Hatteras, NC, two (1 dark, 1 light phase) were found May 23 (Patteson *et al.*). And off Oregon Inlet, NC, Tove *et al.* found two May 23, and singles May 25, 30, and 31. All the Oregon Inlet birds were dark phase individuals.

FEA'S PETREL: The rare but expected Fea's was found three times. Singles were off Oregon Inlet May 24 (Tove *et al.*) and May 29 (Patteson *et al.*), and off Hatteras May 31 (Patteson *et al.*).

BERMUDA PETREL: North Carolina's fourth (second documented with photographs) Bermuda Petrel was found off of Oregon Inlet May 29 (Patteson *et al.*).To what do we attribute these sightings to, the species' recent slight population increase or the fact that we are actively searching for it more?

BLACK-CAPPED PETREL: The high count for North Carolina this spring was the 111 off Oregon Inlet May 22 (Patteson *et al.*). Where much harder to find, singles were noteworthy out of Murrell's Inlet, SC, in late April (Tim Kalbach) and May 30 (Jack Peachey).

AUDUBON'S SHEARWATER: The peak count this spring was 236 off Hatteras May 30 (Patteson *et al.*), a good total for this season.

LEACH'S STORM-PETREL: Excellent counts included 22 off Hatteras May 23 (Patteson *et al.*), 21 off Oregon Inlet May 31 (Tove *et al.*), and an impressive total of 136 off Hatteras May 30 (Patteson *et al.*).

BAND-RUMPED STORM-PETREL: The peak count this season was the 38 off of Oregon Inlet May 31 (Tove *et al.*).

WHITE-TAILED TROPICBIRD: One off Hatteras May 31 (Patteson *et al.*) was the only report received this spring. This continues the recent drought in White-tailed sightings the last couple of years.

RED-BILLED TROPICBIRD: Causing excitement were the sub-adult off Hatteras May 23 (Patteson *et al.*) and the immature off Oregon Inlet May 25 (Tove *et al.*). It is quite unusual for more Red-billeds to be found than White-taileds in a season.

NORTHERN GANNET: One was found sick/injured north of Beaufort, NC (miles away from salt water!) March 9 (Rich Boyd) and was taken to a local wildlife rehab center.

AMERICAN WHITE PELICAN: The only report was of one at Edisto Is., SC, March 14 (Jere Eggleston).

ANHINGA: One was unusual along the Broad River, near Blacksburg, SC, May 9 (*fide* Lyle Campbell).

AMERICAN BITTERN: One was locally unusual near Greenville, NC, April 26 (Brad Carlson and Jamie Glydon).

LEAST BITTERN: Another locally uncommon report was the Least heard at a marsh near the Laurinburg/Maxton Airport, Scotland County, NC, April 13 (Barbara Gearhart).

SNOWY EGRET: A very rare mountain report was of the Snowy found at the lake in Table Rock State Park, SC, May 13 (Scott Stegenga).

LITTLE BLUE HERON: Also rare in spring was the adult Little Blue found in Moore County, NC, April 26 (Jay Carter, *fide* Susan Campbell).

CATTLE EGRET: Two at a turf farm near Tryon, NC, April 17 (Simon Thompson) provided a first county record.

BLACK-CROWNED NIGHT-HERON: Two (1 adult, 1 immature) were along the Middle River, Bertie County, NC, May 9 (Merrill & Ida Lynch). The species is rare here, and there has not been any evidence of local breeding yet.

YELLOW-CROWNED NIGHT-HERON: One was locally unusual at Spring Valley Lake, Whispering Pines, NC, April 24 (Susan Campbell).

GLOSSY IBIS: One was at Altamont, Avery County, NC, April 12-14 (G. Mayfield III and Margery Plymire), providing a very rare report from the mountains.

WOOD STORK: Very unusual for the spring season was the flock of 10 seen flying over Bogue Inlet, NC, May 17, as noted by Russell Roberson.

ROSS'S GOOSE: The immature found in late February at Old Santee Canal State Park, Charleston County, SC, by Steve Thomas was last seen March 1 (Lex Glover).

TUNDRA SWAN: Slightly late inland swans included seven in eastern Edgecombe County, NC, March 22 (Ricky Davis) and two flying northwest in Orange County, NC, March 25 (Randy Emmitt).

EURASIAN WIGEON: A male was at North Pond, Pea Island NWR, NC, March 15 (Harry LeGrand and Ricky Davis) for the only spring report.

BLUE-WINGED TEAL: A first Forsyth County, NC, breeding record was established when a pair was at a nest with four eggs during late April (Ramona Snavely *et al.*). They were seen to abandon the eggs, and surprisingly Mallards and Canada Geese were seen incubating the eggs later! Another first local breeding record was of a female with three young near Pauline, SC, May 8 (Lyle Campbell).

CINNAMON TEAL: This species continued its string of recent sightings in the Carolinas. All adult males, singles were found at Sandy Beach WMA, Lake Moultrie, SC, March 22 (Robin Carter), Dobbins Cattle Farm, Townville, SC, April 3 (Bob & Barbara Maxwell), and Dews Island, Currituck County, NC, May 5 (Merrill Lynch). Also of note was the apparent Cinnamon X Blue-winged Teal hybrid found at the Durham, NC, Sewage Plant ponds May 13-14 (Magnus Persmark). The bird was red overall with a white face crescent.

NORTHERN SHOVELER: Late were two at New Field, Pea Island NWR, NC, May 31 (Ricky Davis).

LATE DIVING DUCKS: Late diving ducks included a Canvasback at Aurora, NC, May 27-28 (Sam Cooper), 19 Ring-neckeds at Roanoke-Rapids Lake, NC, May 25 (Ricky Davis), a Lesser Scaup at Huntington Beach State Park, SC, May 18 (Jack Peachey), two Black Scoters at Oregon Inlet, NC, May 29 (Rick Knight), and four Bufflehead at Roanoke-Rapids Lake May 25 (Ricky Davis).

COMMON EIDER: Sightings along the central North Carolina coast included five (3 males and 2 females) at the Cape Lookout jetty March 22 (Bob Holmes, Wade Fuller, and Clancy Ballenger) and a female at Atlantic Beach March 28 (John Fussell, Susan Arrington, and Bob Holmes).

BLACK SCOTER: Very rare inland in spring was the Black Scoter found on the Jordan Lake, NC, Spring Count May 3 (Doug Shadwick, *fide* Barbara Roth).

OLDSQUAW: Interesting spring reports included two at Huntington Beach State Park, SC, March 7-23 (Tim Kalbach, Simon Thompson, Wayne Forsythe, Dennis Forsythe *et al.*), two at Atlantic Beach, NC, April 11 (John Fussell), and one at Folly Beach, SC, April 12 (Dan Kaplan).

HOODED MERGANSER: This species is a rare breeder in the Carolinas, thus of interest was the female with 10 young seen "crossing I-26" in northern Dorchester County, SC, April 15 (John Cely). The birds made it across safely!

RED-BREASTED MERGANSER: Fifteen was a good count for the mountains at Lake Julian, NC, April 4 (Wayne Forsythe). Also of note were several late spring inland reports including a male on the New River, Alleghany County, NC, May 9 (*fide* James Coman), four on Lookout Shoals Lake, Catawba County, NC, May 9 (Dwayne & Lori Martin), a female below the Russell Dam, Abbeville County, SC, May 16 (Lex Glover), and a female at Salem Lake, Forsyth County, NC, May 31 (Ramona Snavely *et al.*).

RUDDY DUCK: An excellent count of 1200 Ruddies was had at Roanoke-Rapids Lake, NC, March 11 (Frank Enders). The area hosted a big wintering flock, and this total was the peak noted there.

AMERICAN SWALLOW-TAILED KITE: North Carolina sightings included singles near Southern Pines May 3 (Jay Carter, *fide* Susan Campbell), near Sneads Ferry May 9 (Nell Moore *et al.*), over Frisco May 9 (Josh Rose), between Avon and Rodanthe May 16 (Scott Williamson), near Frisco May 25 (M. Carpenter *et al.*), and at Roanoke Rapids May 28 (Randy Yelverton, *fide* Merrill Lynch). South Carolina reports included one in Georgetown County March 23 (Dennis Forsythe *et al.*) and one on Edisto Island on the very early date of March 8 (Sid Gauthreaux and Carroll & Ritchie Belser) providing the second earliest date for the state.

MISSISSIPPI KITE: The peak count reported this spring was of 80+ feeding over several fields near Rembert, Sumter County, SC, May 25 (Lex Glover). One was locally unusual near Stumpy Point, NC, May 23 (John Fussell).

NORTHERN HARRIER: One was late at Jordan Lake, NC, May 13 (Merrill Lynch) and one at the Roanoke Island, NC, marshes May 28 (Rick Knight) was probably a local breeder.

GOLDEN EAGLE: Always noteworthy in the Carolinas, one was in Transylvania County, NC, May 9 (*fide* Norma Siebenheller).

MERLIN: Good inland sightings included singles near Ringwood, Halifax County, NC, April 12 (Merrill Lynch), near Tryon, NC, April 17 (Simon Thompson), at Jackson Park, Hendersonville, NC, May 5 (Simon Thompson), and near Jordan Lake, NC, May 22 (Rob Gluck). Late coastal birds were at Pea Island NWR, NC, May 10 (Josh Rose) and May 28 (Taylor Piephoff *et al.*).

PEREGRINE FALCON: Locally rare was one near Falls Lake, Durham County, NC, March 22, as noted by Carol Williamson and Pete Johnson. One was late at Cape Hatteras, NC, May 27 (Taylor Piephoff *et al.*).

BLACK RAIL: It is rare to get good looks at this secretive species. One was seen walking on some weeds at Huntington Beach State Park, SC, March 22 (Paul Rogers and Bob & Barbara Maxwell), and one (out of two present) was seen at North River marsh, Carteret County, NC, May 9 (Brad Carlson).

SORA: Locally uncommon were one at a Pinehurst, NC, golf course pond April 8 & May 9 (Dick Burk) and one at Hooper Lane, Henderson County, NC, April 26 (Simon Thompson).

COMMON MOORHEN: Two were with coots in the Bight at Cape Lookout, NC, Bight May 14 (*fide* John Fussell), obviously late migrants that were rather out of place!

AMERICAN COOT: A flock of 20 (with two Moorhens) was at Cape Lookout, NC, May 14 (*fide* John Fussell), providing a rather late locally unusual report.

SANDHILL CRANE: Rare in the Carolinas, especially in spring, were two on the ground near Richlands, Onslow County, NC, May 9 (Nell Moore) and one at Pawley's Island, SC, April 25 (Tom Hankins, *fide* Lex Glover).

BLACK-BELLIED PLOVER: The only inland sighting reported this spring was of one at Roanoke Rapids Lake, May 25 (Ricky Davis).

AMERICAN GOLDEN-PLOVER: Rare-in-spring reports included two at Hooper Lane, NC, April 30 (Wayne Forsythe), one on the sound-side flats near Nags Head, NC, May 13 (Jim Bloor), and one at the Savannah Spoil Site, SC, May 23, as noted by Steve Calver.

AMERICAN OYSTERCATCHER: Several were found nesting on "flat rooftops" in Atlantic Beach, NC, in early April (John Fussell). A local animal shelter says they have known about this for several years, but Fussell knows of no other rooftop nestings for this species. The presence of two oystercatchers at the upper end of Roanoke Rapids Lake, NC, May 25 (Ricky Davis) was a complete surprise. This is about the 4th or 5th inland North Carolina report for this strictly coastal species. The birds were seen feeding on mussels before heading downstream toward the lower end of the lake.

BLACK-NECKED STILT: A locally good count was the six at the North Topsail Beach, NC, spoil area May 9 till the end of the month (John Fussell).

SPOTTED SANDPIPER: Quite unusual was the Spotted found on the Heintooga Spur Road at the Black Camp Gap parking lot, Great Smoky Mountain Nat. Park, NC, May 2 (Eric Dean). The elevation there is 4450ft.!

UPLAND SANDPIPER: Spring reports included one at the Cherry Hospital, Wayne County, NC, area March 28 (Eric Dean), five there April 9 (Dean), one near Tryon, NC, May 4 (Simon Thompson), one in Kershaw County, SC, April 3 (Steve Patterson and Lex Glover), up to four at the Orangeburg, SC, sod farm in April (sev. obs.), and up to six at Hooper Lane, NC, in late April (sev. obs.).

WHIMBREL: A leucistic individual was at Bird Shoal, Carteret County, NC, May 2 (John Fussell). A bird with this plumage has been seen at this location for several years running.

HUDSONIAN GODWIT: Extremely rare anywhere in the Carolinas in spring, one was in fine alternate plumage at the Savannah Spoil Site, SC, May 13, (Steve Calver), providing only the third spring report for the state.

SEMIPALMATED SANDPIPER: Inland migrants included four at Roanoke Rapids Lake, NC, May 25 (Ricky Davis), three at Brier Creek Res., Wake County, NC, May 17 (Davis), one at the Durham, NC, Sewage Plant May 7 (Magnus Persmark), and one near Maxton, NC, May 24 (Harry LeGrand).

WESTERN SANDPIPER: Rare in the mountains was one at the Ecusta fields, Transylvania County, NC, April 19 (*fide* Norma Siebenheller). Also two in Aiken, SC, May 9 (Anne Waters) were good finds.

LEAST SANDPIPER: Good inland counts included 30 at Roanoke Rapids Lake, NC, May 25 (Ricky Davis) and an impressive 126 in Aiken, SC, May 9 (Anne Waters).

WHITE-RUMPED SANDPIPER: Locally unusual were six in Aiken, SC, May 9 (Anne Waters) and four in Onslow County, NC, May 9 (Nell Moore). Also one was at the Goldsboro, NC, Wastewater Treatment Plant May 30 (Eric Dean) and three were at Brier Creek Res., Wake County, NC, May 17 (Ricky Davis).

DUNLIN: Inland Dunlins were found at Goldsboro, NC, March 14 (Eric Dean), at the Laurinburg/Maxton Airport, Scotland County, NC, April 11 (Barbara Gearhart), and at Jordan Lake, NC, May 17 (Ricky Davis).

CURLEW SANDPIPER: Only one Curlew Sandpiper was found this spring, an adult at the Cape Hatteras, NC, campground May 16 (Pat Moore).

SHORT-BILLED DOWITCHER: One was locally rare inland at Hooper Lane, Henderson County, NC, May 1, as noted by Simon Thompson.

AMERICAN WOODCOCK: Nests of this species are notoriously hard to find. This spring two nests were found near Trenton, Jones County, NC, by Clarence Ballenger. One found March 15 had four eggs and another found March 21 had three eggs. Also an adult with two young were observed in the Croatan Forest, Carteret County, NC, April 12 by John Fussell.

RED PHALAROPE: Very rare onshore, one was found at the Cape Hatteras, NC, Visitor Center pond May 13 (Jon Altman) and one was found on the Bodie Island, NC, Lighthouse pond May 14 (Jim Bloor).

GREAT SKUA: Two seen this spring, singles off Hatteras, NC, March 7 (Spurgeon Stowe, *fide* Brian Patteson) and March 14 (Patteson *et al.*) were certainly present from the winter season.

POMARINE JAEGER: The peak count this season was nine off Oregon Inlet, NC, May 24 (Tove *et al.*), somewhat down from previous springs.

PARASITIC JAEGER: Reports included one at Hunting Island, SC, April 25 (John Batson *et al.*), one at Cape Hatteras, NC, May 9 (Josh Rose), and two just off the beach of Hatteras Island, NC, May 24 (Patteson *et al.*).

LONG-TAILED JAEGER: Reports of this species were down too, with singles off Oregon Inlet, NC, May 31 (Tove *et al.*) and off Hatteras, NC, May 31 (Patteson *et al.*).

LAUGHING GULL: One was at Salem Lake, Forsyth County, NC, March 31 (Ramona Snavely, Ann Newsome), providing about the second county record.

LITTLE GULL: Three off Hatteras, NC, March 14 (Patteson *et al.*) were the only ones reported.

BONAPARTE'S GULL: An excellent count for the mountains was the 55 at Lake Julian, Buncombe County, NC, April 4 (Wayne Forsythe).

CALIFORNIA GULL: The wintering adult at Cape Hatteras, NC, was last seen March 17 (Pat Moore *et al.*).

THAYER'S GULL: An adult was seen at Cape Hatteras, NC, March 15 (Brian Patteson, Ned Brinkley, Marshall Iliff) for the only spring report.

ICELAND GULL: Two immatures were still in the Cape Hatteras, NC, area March 15, as noted by Patteson, Brinkley, Iliff, Harry LeGrand, and Ricky Davis. Also a first-winter bird was quite rare and very late at Pawley's Island, SC, May 16 (Bob Maxwell), providing probably the latest report ever for that state.

LESSER BLACK-BACKED GULL: One was late at Cape Hatteras, NC, when an immature was found May 26 (Ned Brinkley).

CASPIAN TERN: One was locally rare near Pontiac, Richland County, SC, April 23 (Lex Glover), and the peak one-day total at Jordan Lake, NC, was 45 on April 26 (Ricky Davis).

ROSEATE TERN: North Carolina once again had the only sightings, with two at Cape Lookout May 16 (John Fussell and Susan Arrington), two at the north end of Bear Island, Onslow County May 23 (Jimi & Nell Moore), and one at Cape Hatteras May 26-27 (Ned Brinkley) and May 31 (Ricky Davis).

ARCTIC TERN: Offshore reports included singles off Oregon Inlet, NC, May 22 (Patteson *et al.*) and May 30 (Tove *et al.*). The best count was six off Oregon Inlet May 29 (Patteson *et al.*).

FORSTER'S TERN: The only inland report received was of singles at Jordan Lake, NC, April 26 and May 17 (Ricky Davis).

BRIDLED TERN: The best offshore one-day totals this spring were 13 off Oregon Inlet, NC, May 28 and 14 off Hatteras, NC, May 30 (Patteson *et al.*).

SOOTY TERN: One was offshore out of Hatteras, NC, May 23 (Patteson *et al.*) and onshore singles were at Cape Hatteras, NC, May 27 & 31 (Taylor Piephoff *et al.*, Ricky Davis) and near the Southport, NC, ferry terminal May 30 (John Brunjes, *fide* John Connors).

BLACK TERN: One was very rare for the mountains along the New River near Piney Creek, Alleghany County, NC, May 9 (James & Jim Coman). This is only about the third report for the northern mountains. The only other inland Black was at Jordan Lake, NC, May 17 (Ricky Davis).

RAZORBILL: The only spring sightings were three off Hatteras, NC, March 14 (Patteson *et al.*) and one fly-by at Cape Hatteras March 15 (Ricky Davis).

EURASIAN COLLARED-DOVE: Several locations in North Carolina have resident birds now, with up to six in Beaufort (sev. obs.), up to three pairs in the Holden Beach area (Roy Slack, Mary McDavit), and at least three near Sneads Ferry, where copulation and probable breeding behavior have been observed (Nell Moore).

WHITE-WINGED DOVE: One was found near Pantego, Beaufort County, NC, April 17 (Gene Howe), and up to three have been seen in an area of Beaufort, NC, from early May on into June (John Fussell *et al.*).

BLACK-BILLED CUCKOO: This species was scarce this spring, with singles being found at Winston-Salem, NC, May 2 (*fide* Ramona Snavely) and at Pea Island NWR, NC, May 25 (Jeff Lewis).

YELLOW-BILLED CUCKOO: One seen in Jones County, NC, March 27 (Nell Moore) provided one of the earliest spring arrival dates for the Carolinas.

SHORT-EARED OWL: Up to two lingered for about three weeks in May in an area east of Moore, SC (*fide* Lyle Campbell). This species is normally gone from the Carolinas by mid-April.

RUFOUS HUMMINGBIRD: The wintering adult male near Ocean Isle Beach, NC, was last seen about April 1 (*fide* Mary McDavit).

YELLOW-BELLIED SAPSUCKER: Potential nesting activity was observed near Daniel Ridge, Transylvania County, NC, April 4 (*fide* Norma Siebenheller) when a pair was seen copulating. There are no confirmed nesting records for the county. A late lingering individual was observed near Spartanburg, SC, May 11 (*fide* Lyle Campbell).

OLIVE-SIDED FLYCATCHER: About average for the Carolinas, there were three reports of this flycatcher received. One was below the Lake Murray Dam, Lexington County, SC, May 9 (Roger Smith, Tom Hankins, and Jerry Griggs); one was along Big Woods Road, near Jordan Lake, Chatham County, NC, May 12-13 (Doug Shadwick, Emily DeVoto, Merrill Lynch, Gail Lankford, sev. obs.); and one was at Mason Farm, Chapel Hill, NC, May 13 (Jeremy Hyman).

LEAST FLYCATCHER: Away from the mountains where expected, locally rare individuals were at Raven Rock State Park, NC, May 16 (Hal Broadfoot and Mary Stevens) and Pea Island NWR, NC, May 25 (Jeff Lewis).

GRAY KINGBIRD: One was present at Cape Lookout, NC, May 9-10 (Hal Broadfoot) and again May 16 (John Fussell and Susan Arrington) for the only report.

SCISSOR-TAILED FLYCATCHER: One south of McClellanville, SC, May 18 (David Halloway) was still present there May 21 (David Donmoyer), for this season's token Scissor-tailed report.

LOGGERHEAD SHRIKE: An excellent count of 11 shrikes was had on the Aiken County, SC, N. Am. Migration Count May 9 (*fide* Anne Waters).

YELLOW-THROATED VIREO: One found (seen well) in Beaufort, NC, on the absurdly early date of March 10 (Rich Boyd) defies explanation.

WARBLING VIREO: One returned to its summering site at Beaver Lake, Asheville, NC, May 3 (Carolina Bird Club meeting members). Other noteworthy reports included migrants at Pea Island NWR, NC, May 10 (Josh Rose) and at Vultare, Northampton County, NC, May 25 (Ricky Davis).

PHILADELPHIA VIREO: Rare spring migrants included one at Raven Rock State Park, NC, May 17 (Kent Fiala) and a singing individual at Rocky Mount, NC, May 28 (Ricky Davis).

COMMON RAVEN: This species continues to spread eastward by using downtown buildings. This season up to four have been present in Greensboro, NC (Herb Hendrickson), where on April 24 one pair was observed in courtship (Henry Link).

CLIFF SWALLOW: Locally unusual reports included three at Parr Res., SC, March 22 (Steven Harris), one at Sneads Ferry, NC, May 9 (Nell Moore), and two along the North fork of the New River, Ashe County, NC, in May (*fide* James Coman).

RED-BREASTED NUTHATCH: One was late near Lake Townsend, Guilford County, NC, May 2, as noted by Herb Hendrickson.

WHITE-BREASTED NUTHATCH: Two were locally rare and unusual on Roanoke Island, NC, March 21 (Jeff Lewis).

SEDGE WREN: Two at Altamont, Avery County, NC, May 10 (G. Mayfield) and one at Winston-Salem, NC, May 2 (*fide* Ramona Snavely) provided good spring inland reports.

GOLDEN-CROWNED KINGLET: One was found in southwestern Wake County, NC, on the quite late date of May 16 by Will Cook, Jeff Pippen, and Marsha Stevens. This species is normally gone from the wintering areas by May.

GRAY-CHEEKED THRUSH: The thrush migration seemed very poor this spring. There were almost no reports of thrushes. The best sighting was of one Gray-cheeked at Myrtle Beach State Park, SC, May 11 (Ann Wilson *et al.*).

AMERICAN PIPIT: The flock of 250-300 at the Ecusta fields, Pisgah Forest, NC, March 20 (Betty McIlwain) was locally unusual. This species normally leaves the Carolinas by the end of April. Thus of note were late pipits near Moore, SC, May 9 (*fide* Lyle Campbell) and at the NCSU Dairy Farm, south of Raleigh, NC, May 17 (Ricky Davis).

GOLDEN-WINGED WARBLER: One was a locally rare spring transient at Laurinburg, NC, May 4, as noted by Barbara Gearhart.

"LAWRENCE'S" WARBLER: The rarest of the two hybrids of Blue-winged and Golden-winged Warblers was found once this spring, a male was at Todd, Ashe County, NC, May 9 (Les Saucier, *fide* James Coman).

TENNESSEE WARBLER: One was locally rare at Rocky Mount, NC, May 23 (Ricky Davis), providing a good spring sighting.

ORANGE-CROWNED WARBLER: One was late at Manteo, NC, April 15 (Jeff Lewis), and locally uncommon were two different birds in Edgecombe County, NC, March 22 & 29 (Ricky Davis) and one at St. Andrews College, Scotland County, NC, March 5 (Barbara Gearhart).

NASHVILLE WARBLER: Migrants found included a singing male on Sassafras Mountain, SC, May 6 (Jim Edwards), one at Chimney Rock Park, NC, April 26 (Simon Thompson), and one at Winston-Salem, NC, May 28 (Royce Hough, *fide* Ramona Snavely) was quite late for a transient.

MAGNOLIA WARBLER: One at Cape Lookout, NC, May 14 (John Fussell, Larry Crawford *et al.*) was locally very rare.

CAPE MAY WARBLER: A male found at Huntington Beach State Park, SC, on the early date of March 22 (Simon Thompson) was probably a wintering bird.

YELLOW-RUMPED WARBLER: One was quite late on the coast at Pea Island NWR, NC, May 25, as noted by Jeff Lewis.

BLACK-THROATED GREEN WARBLER: This species arrived in the Carolinas in good numbers in late March this year. On March 29 three were in Edgecombe County, NC (Ricky Davis), one was in southern Durham, NC (Pat Coin), and an impressive count of eight was had at Chimney Rock Park, NC (Simon Thompson). Also one was found at Raven Rock State Park, NC, April 1 (Paul Hart). At the other end of the migration period, a late Black-throated Green was found at Vultare, Northampton County, NC, May 25 (Ricky Davis), and one landed on a boat in Pamlico Sound, NC, May 30 (Larry Crawford)!

BLACKBURNIAN WARBLER: Locally uncommon sightings included one at Laurinburg, NC, May 14 (Barbara Gearhart), one on Roanoke Island, NC, May 20 (Jeff Lewis), and one at Fort Macon State Park, NC, May 30 (Randy Newman, *fide* John Fussell) was rather late.

BAY-BREASTED WARBLER: Good finds were two in Laurinburg, NC, May 4 (Barbara Gearhart) and one near the coast at Leland, Brunswick County, NC, May 12 (Greg Massey).

BLACKPOLL WARBLER: One was a little early at Jackson Park, Hendersonville, NC, April 17 (Wayne Forsythe), and one was quite late on Roanoke Island, NC, June 1 (Jeff Lewis).

CERULEAN WARBLER: One near Winnabow, Brunswick County, NC, May 12 (Greg Massey) was not only locally rare but also rather late for a spring migrant.

BLACK-AND-WHITE WARBLER: One was either an early migrant or a locally wintering bird at Winston-Salem, NC, March 23 (*fide* Ramona Snavely).

SWAINSON'S WARBLER: Two singing on territory in typical rhododendron ravines along Simpson Creek, Burke County, NC, May 1 (Harry LeGrand) provided one of the few reports of breeding season birds for that county. Also the species was well-reported in the NC Sandhills and inner Coastal Plain, where four were near Vass (Susan Campbell) and three were near Lobelia (Jay Carter), all in Moore County on April 26. Also in Moore County, one was at Southern Pines May 10 (Susan Campbell), and one was at Ft. Bragg, Hoke

County April 26 (Alan Schultz). And finally a total of eight in the Laurinburg, NC, area during May (Barbara Gearhart) was noteworthy.

KENTUCKY WARBLER: One was locally unusual on Roanoke Island, NC, April 25, as noted by Jeff Lewis.

CONNECTICUT WARBLER: The only report was of one at Hospital Fields, Transylvania County, NC, May 16 and May 19 (Tom Joyce and Norma Siebenheller).

MOURNING WARBLER: All reports of this rare migrant were coastal this year, an unusual event. One was seen and heard at Alligator River NWR, Dare County, NC, May 22 (Keith Camburn, sev. obs.), one was heard at Huntington Beach State Park, SC, May 25 (Tim Kalbach *et al.*), and one flew around a boat offshore of Hatteras, NC, May 24 (Brian Patteson *et al.*), providing a most unusual identification challenge!

WILSON'S WARBLER: Some of the more interesting reports included three on the Chapel Hill, NC, Spring Count May 10 (*fide* Will Cook), one along the Roanoke River, Bertie County, NC, May 9 (Merrill & Ida Lynch), and one at Myrtle Beach State Park, SC, May 10 (Ann Wilson *et al.*).

CANADA WARBLER: Rare spring migrants near the coast were singles at Alligator River NWR, Dare County, NC, May 22 (Keith Camburn, sev. obs.), Leland, Brunswick County, NC, May 23 (Greg Massey), and another in that county in the Green Swamp the same day (Greg Massey *et al.*).

WESTERN TANAGER: The wintering male at a Long Beach, NC, feeder was last seen about April 1 (*fide* Mary McDavit).

LARK SPARROW: One in McAlpine Park, Charlotte, NC, April 24 (Taylor Piephoff) provided a rare inland spring report.

HENSLOW'S SPARROW: The VOA sites near Greenville, NC, were once again censused this spring May 24-25 by John & Paula Wright. VOA-A produced 144 singing males, and VOA-B had 54 singing birds. The totals are up from last year and seem to show that the management practices at the sites are still conducive to keeping the breeding habitat requirements for the species.

LECONTE'S SPARROW: This elusive sparrow was found at the Savannah Spoil Site, SC, when two were seen April 7 (Steve Calver). Spring reports of this species are very rare in the Carolinas: we really don't know just when wintering birds normally leave.

LINCOLN'S SPARROW: Spring Lincoln's are always noteworthy in the Carolinas. This year singles were found southwest of Goldsboro, NC, April 4 (Eric Dean), at Mason's Farm, Chapel Hill, NC, April 14 (Jeremy Hyman), and in Charlotte, NC, April 15 (Taylor Piephoff).

WHITE-CROWNED SPARROW: A count of 19 at the Savannah Spoil Site, SC, March 24 (Steve Calver) was a good total for that southern coastal location.

ROSE-BREASTED GROSBEAK: Two were slightly late migrants at a feeder in Winston-Salem, NC, May 26 (*fide* Ramona Snavely).

INDIGO BUNTING: An immature near Hilton Head, SC, March 14 (*fide* Judy Halleron) was quite possibly a wintering individual instead of an early migrant.

PAINTED BUNTING: Interesting inland sightings included a male on territory for the second year in a row in Columbia, SC, May 8 (Bob Wood), two males below the Lake Murray Dam, Lexington County, SC, May 9 (Roger Smith and Jerry Griggs), immature males in Edgefield County, SC, May 16 and Sumter County, SC, May 25 (Lex Glover), a singing male near Aurora, NC, May 21 (Sam Cooper), and a male at a feeder at Merchant's Millpond State Park, NC, May 11-12 (Floyd Williams).

DICKCISSEL: One of this year's spring sightings involved a male and a recently fledged juvenile at the North Pacolet, SC, Sod Farm May 9 (Lyle Campbell). This is one of the earliest dates for young ever reported in the Carolinas. Other Dickcissels found were a male at the NCSU Dairy Farm south of Raleigh, NC, May (*fide* John Connors), three males and a female near Lattimore, Cleveland County, NC, May 20 (Simon Thompson), a male at Aurora, NC, May 21 (Sam Cooper), one at Occoneechee Neck, Northampton County, NC, May 25 (Ricky Davis), and a pair at the VOA-B site near Greenville, NC, May 24-25 (John & Paula Wright).

RUSTY BLACKBIRD: Two were late at Jackson Park, Hendersonville, NC, May 5, as noted by Simon Thompson.

BREWER'S BLACKBIRD: The only report received was of two females at Calvert, Transylvania County, NC, April 16 (Norma Siebenheller).

BALTIMORE ORIOLE: An immature male which wintered in Rocky Mount, NC, remained until the very late date of May 25 (Betty Davis). Wintering birds normally leave by early May, when most sightings involve migrants.

HOUSE FINCH: This species continues to spread as a breeder, and some amazingly early nesting dates occurred this year. In Columbia, SC, a female at a nest with four eggs was seen March 17 (*fide* Bob Wood), possibly a record early date for that state. In North Carolina, a nest with eggs was found at Rosman, Transylvania County on the even earlier date of March 9 (*fide* Norma Siebenheller). A record early date for that state, it is no wonder that House Finches have been so successful in extending their range.

RED CROSSBILL: The only report received was of a flock of eight flying over the South Mountains in northeast Rutherford County, NC, May 16 (Merrill Lynch).

EVENING GROSBEAK: Late wandering grosbeaks included one at Fort Macon State Park, Carteret County, NC, May 13 (Randy Newman, *fide* John Fussell) and two at a feeder in Winston-Salem, NC, May 26 (*fide* Ramona Snavely).

Index to Vol. 62 of The Chat

A

Aiken County, 75,78, 173
Ake, Robert, 58, 60, 73
Alamance County, 100, 101, 102, 105
Alaska, 151
Albatross, Black-Browed, 50, 68
Albatross, Yellow-Nosed, 50, 67, 180
Allegheny County, 100, 142
Allen, Amanda S., 173
Allen, Donald, 16
Allendale County, 173
American Birds, 51
American Ornithologists' Union, 51,58
Ani, Groove-billed, 180, 182
AOU Checklist Committee, 68
Anhinga, 77
Ashe County, 142
Atlantic Beach, NC, 180
Avery County, 12, 14 101, 102, 106
Avocet, American, 77
Avon, 59

B

Bailey, Donna, 86
Ballenger, CE, 118
Barnhart, Carolyn, 151
Barnhart, Jerry, 151
Barnwell County, 76, 79, 173
Beaufort County, 76,80
Becker Sound, 103
Behrens, Kenneth, 149
Behrens, Paul, 150
Bird Records Committee, NC, 8, 49, 64, 72, 180
Bird Records Committee, SC, 158
Bittern, Least, 103
Black Balsam, 104
Blackbird, Red-winged, 15, 18
Blackbird, Rusty, 15, 103
Bladen County, 142, 143
Blowing Rock, NC, 141, 143
Blue Ridge, 142
Bluebird, Eastern, 13
Bobolink, 23
Bobwhite, Northern, 13, 14, 15, 18, 20
Bolte, Bill, 112
Bonnell, Molly, 92
Booby, Brown, 56, 71
Booby, Masked, 56, 71
Breeding Bird Atlas, NC, 142, 144
Brevard, 104, 105
Briefs for the Files (description) 187
Brinkley, Edward S. (Ned), 33, 49, 58, 180
Brunswick County, 101, 102, 107
Bufflehead, 102
Buncombe County, 101, 103, 108
Bunting, Lazuli, 183
Bunting, Painted, 77
Burnette, Dennis, 100, 114, 116, 124

C

California, 151
Campbell, Lyle, 23, 84, 96
Campbell, Susan, 144
Canvasback, 103

Cape Fear River, 103
Cape Hatteras, 34, 153
Cape Hatteras Point, 57, 59, 180
Cape Romain, 158
Carolina Bays, 142, 143
Carter, Derb, 180
Carter, Robin, 23, 38, 75, 94, 157, 158
Catawba River, 76
Catbird, Gray, 18
Cathey, Sam, 17
Cely, John, 171
Chapel Hill, NC, 14
Charleston County, 76, 81, 152, 155
Charleston, SC, 12, 156
Charlotte Motor Speedway, 185
Chat, Yellow-breasted, 13, 18
Chatham County, 101, 103, 110, 142
Cherokee County, NC, 101, 103, 111, 142
Cherokee County, SC, 76, 83
Chester County, 76, 84
Chickadee, Black-capped, 104
Chowan County, 142
Chuck-will's-widow, 18
Cleveland County, 101, 103, 112, 142
Columbia, SC, 157
Coman, James, 19
Congaree Swamp, 23
Conway, Albert, 84
Cook, Will, 14, 111, 149
Coot, American, 12, 102, 103, 104
Cormorant, Double-crested, 12
Cowbird, Brown-headed, 18
Cowbird, Shiny, 182
Cowpens Battlefield, 76
Crane, Sandhill, 77
Craven County, 100, 142
Creeper, Brown, 104
Crossbill, Red, 158
Crossbill, White-Winged, 157
Crow, American, 18
Crutchfield, Philip J., 114
Cuckoo, Black-billed, 19, 22, 76
Cuckoo, Yellow-billed, 13, 14, 18
Culebra, 155
Cumberland County, 101, 103, 113, 142
Currituck Banks, 59
Currituck County, 142
Cypress, Bald, stands, 143

D

Dare County, 153
Davis, Ricky, 49, 180
Diamond Shoals Light, 54
Dickcissel, 23, 76, 103
Disher, David, 22
Dove, Mourning, 13, 14, 15
Dovekie, 59, 72
Dowitcher, Long-billed, 77
Duck, American Black, 77, 103
Duck, Mottled
Duck, Ring-necked, 103
Duck, Ruddy, 77, 103
Duck, Wood, 104
DuMont, Paul, 60, 73
Dunning, John B., Jr., 173
Durham County, 100

E

Eagle, Bald, 103, 104
Eastman, Caroline, 38, 157
Egret, Cattle, 104

Egret, Great, 17
Egret, Snowy, 21

F

Fairfield County, 76, 85
Falcon, Peregrine, 20, 77, 103
Farrington Rd Sewage Plant, 15
Ferebee, Peggy B., 12
Finch, House, 18, 157
Finch, Purple, 103, 157
Flicker, Northern, 175
Florida, 153, 155
Flycatcher, Least, 20, 77, 103
Flycatcher, Olive-sided, 19
Flycatcher, Willow, 76, 78, 103
Folly Beach, SC, 155
Forsyth County, 101, 114
Forsythe, Dennis, 149, 155, 156
Fort Macon, 183
Franklin County, 142
Frigatebird, Magnificent, 56
Fulmar, Northern, 51, 66, 68, 152

G

Galizio, J. Mark, 32
Gallinule, Purple, 77
Gannet, Northern, 56, 181
Gates County, 142
Georgetown County, 77, 86
Georgia, 153
Glover, Lex, 152, 158
Gnatcatcher, Blue-gray, 15, 77
Godwit, Marbled, 76
Goldfinch, American, 157
Goose, Canada, 18
Grackle, Common, 15, 18
Graham County, 142
Grandfather Mountain, 102
Grebe, Horned, 102
Grebe, Pied-billed, 12, 18
Greensboro, NC, 16
Greenville County, SC, 77, 87
Greenville, NC, 17
Greenville Sewage Treatment Plant, 104
Grosbeak, Blue, 23
Ground-Dove, Common, 75, 76, 77
Grouse, Ruffed, 103
Gulf Stream, 156
Guilford County, 101, 103, 114
Guillemot, Black, 32, 59, 72
Gull, Bonaparte's, 15, 58, 72, 77
Gull, California, 57, 72
Gull, Iceland, 58
Gull, Ivory, 58, 72
Gull, Lesser Black-backed, 77
Gull, Sabine's, 57
Gull, Thayer's, 58, 72
Gull, Yellow-legged, 181

H

Hahn, Diane, 108
Halloran, George, 76
Halloran, Judy, 76, 81
Hampstead, NC, 180
Hampton County, 77, 88
Hankins, Tom, 158
Harbor Island, 76
Hardwick, John, 32
Harnett County, 142
Harrier, Northern, 77, 103, 104
Harrisburg, NC, 185
Hart, Paul, 21
Hass, Todd, 60, 73
Hatteras Village, 59
Hawk, Red-shouldered, 15
Hawk, Red-tailed, 15

Hemingway Sewage Lagoons, 78
Henderson County, 101, 103, 116
Hendrickson, HT, 12, 141
Heron, Great Blue, 20
Heron, Green, 20
Hoke County, 142
Hope, Alice, 155, 156
Horry County, 77, 89
Howe, Gene, 180
Huggins, Katherine, 152
Hummingbird, Black-chinned, 181, 182
Hummingbird, Calliope, 181
Hummingbird, Ruby-throated, 18, 181, 182
Huntington Beach State Park, 77, 149, 151
Hurricane David, 59
Hurricane Ginger, 55

I

Ibis, White, 77
I-77, 76
Iredell County, 17

J

Jackson Park, 103
Jaeger, Long-tailed, 57, 65
Jaeger, Parasitic, 49, 56, 57, 71
Jaeger, Pomarine, 35, 56, 71
Jaegers, 65
Jamaica Bay, NY, 155
Jasper County, 77, 90
Jones County, 101, 103, 117
Jordan Lake, 17
Junco, Dark-eyed, 12
Justice, Michael J., 1
Justice, Teresa C., 1

K

Kalbach, Tim, 95
Kestrel, American, 173
Kiawah Island, SC, 152
Killdeer, 21, 38
Kingbird, Eastern, 15, 21, 182
Kinglet, Golden-crowned, 102
Kinglet, Ruby-crowned, 21
Kinglets, 103
Kite, Mississippi, 18, 76, 103
Kite, Swallow-tailed, 76, 77, 103
Knot, Red, 76

L

Lake Higgins, 103
Lake Metcalf, 103
Lake Pinehurst, 104
Lark, Horned, 185
Lee, David S., 63, 141, 153
LeGrand, Harry, 49, 180, 183, 185
Lexington County, 77, 91
Little Contentnea Creek, 104
Longspur, Chestnut-collared, 185
Longspur, Lapland, 185
Longspur, McCown's, 186
Loon, Common, 21, 76
Louisiana, 151

M

Macon County, 100, 101, 103, 118
Marine birds, 49
Martin, Jo Ann, 113
Martin, Purple, 20

Maxwell, Barbara, 158
Maxwell, Bob, 158
McDowell County, 142
Meadowlark, Eastern, 13, 15, 18
Merganser, Common, 103
Merganser, Hooded, 76
Merganser, Red-breasted, 102, 103, 104
Merry Oaks, 103
Metz, Patricia E., 91
Michigan, 151
Mississippi, 151
Mize, Bobby, 106
Mobbing, 33
Mockingbird, Northern, 1, 13, 14
Moore County, 101, 104, 119, 142
Morehead City, 51
Mount Mitchell, 141
Mt. Pleasant, SC, 153
Mullberry trees, 76

N

National Geographic Field Guide to Birds of N.A., 151
Nest Record Card, NC, 144
New River, 19
Nighthawk, Antillean, 180
North Carolina Museum of Natural Science, 60, 64, 142, 144
North Carolina Sandhills, 142
Nugent, Perry, 76, 83
Nuthatch, Red-breasted, 102

O

Ocean Isle Beach, 102
Oconee County, 77, 92
Old Hope Valley Road, 15
Onslow County, 100
Orange County, 100
Orangeburg County, 38
Oregon Inlet, 55
Oriole, Baltimore, 15
Oriole, Orchard, 18
Osprey, 20
Outer Banks
Outer Continental Shelf, 71 , 73
Ovenbird, 13, 20
Owl, Barn, 20, 76, 78
Owl, Great Horned, 22

P

Parnell, James F., 32
Patterson, Steve, 158
Patteson, Brian, 49, 180
Pea Island, 59, 143, 153
Peachey, Jack, 87
Peterson's *Field Guide to Birds of Eastern & Central N.A.*, 151
Petrel, Bermuda, 51, 64, 68
Petrel, Black-capped, 51, 65, 68
Petrel, Bulwer's, 53, 70
Petrel, Cape, 50, 51, 68
Petrel, Fea's, 52, 69
Petrel, Herald, 53, 70
Petrel, Soft-plumaged, 52, 69
Petrel, Zino's, 52
Pfaff, Jean, 156
Phalarope, Red, 56, 71
Phalarope, Wilson's, 76
Phoebe, Eastern, 76
Piephoff, Taylor, 152, 185
Pintail, Northern, 77
Pitt County, 101, 104, 121
Plover, Piping, 76, 103
Plover, Semipalmated, 15, 21
Plymire, Margery, 14, 107

Polk County, 100, 101, 104, 122, 142
Post, William, 152, 155
Puerto Rico, 155

R

Rail, Virginia, 76
Raleigh, NC, 20, 141, 143
Randolph County, 101, 104, 123
Raven, Common, 77
Raven Rock State Park, 20
Razorbill, 59, 72
Redstart, American, 19
Rhode Island, 155
Richard, Carroll, 89
Richmond County, 142
Richland County, 78, 93, 157
Robin, American, 18
Rockfish Creek, 103
Rocky Mount, NC 141
Roff, Steve, 151
Roth, Barbara, 17
Rusert, Thomas O., 119

S

Saluda County, 78, 94
Saluda River, 77
Sandpiper, Baird's, 23, 78
Sandpiper, Least, 15, 21, 38
Sandpiper, Pectoral, 38, 39
Sandpiper, Semipalmated, 23, 38
Sandpiper, Sharp-tailed, 38, 39
Sandpiper, Solitary, 38
Sandpiper, Spotted, 38
Sandpiper, Stilt, 38, 77, 104
Sandpiper, Upland, 38
Sandpiper, Western, 23
Sandpiper, White-rumped, 23, 75, 104
Sapsucker, Yellow-bellied, 15, 78
Sargassum, 71
Savannah NWR, 77, 173
Savannah River Site, 76, 173
Savannah Spoil Area, 77
Scaup, Lesser, 77, 103
Scotland County, 142
Scott, Randolph, 155
Seabirds, 49
Sea Island Plantation, 103
Sea Island Vet Clinic, SC, 155, 156
Shearwater, Audubon's, 35, 54, 70
Shearwater, Cory's, 33, 35, 36, 53, 60, 66
Shearwater, Greater, 34, 53, 70, 180
Shearwater, Little, 54, 70
Shearwater, Manx, 54
Shearwater, Sooty, 53, 70, 180
Shelby, NC, 22
Shoveler, Northern, 77
Shrike, Loggerhead, 104
Shuler, Ned, 76
Shuler, Teddy, 76, 80
Siebenheller, Norma, 125
Siskin, Pine, 102
Skua, Great, 57
Skua, South Polar, 33, 57
Skuas, 65
Snow, John, 97
Solomon Jones Road, 104
Sora, 104
South Carolina Bird Life, 142
South Carolina State Checklist, 151
Southern Pines, NC, 22

Sparrow, Bachman's, 23, 103
Sparrow, Chipping, 18
Sparrow, Fox, 103
Sparrow, Henslow's, 104
Sparrow, House, 185
Sparrow, Lincoln's, 15
Sparrow, Savannah, 104
Sparrow, Seaside, 76
Sparrow, Song, 77, 183
Sparrow, Swamp, 103
Sparrow, Vesper, 103
Sparrow, White-crowned, 76, 105
Sparrow, White-throated, 18, 103, 183
Spartanburg County, 23, 78, 95
Spires, Tonya, 90
Spring 1997 North American
Migration Count in NC, 100
Migration Count in SC, 75
Spring Bird Count, 1997, 12
Squirrel, Southern Flying
St. Catherine's Island, 153
Stork, Wood, 76, 77
Storm-Petrel, Leach's, 55
Storm-Petrel, White-faced, 55, 68
Storm-Petrel, Wilson's, 54, 60, 71
Sunset Beach, 102, 103
Swain County, 142
Swallow, 103
Swallow, Cliff, 21, 76
Swallow, N. Rough-winged, 15
Swallow, Tree, 15
Swan, Mute, 104
Swift, Chimney, 15

T

Tanager, Scarlet, 15, 19
Tanager, Summer, 12, 14, 15, 78
Teal, Blue-winged, 12, 14, 15, 102, 103
Tennessee, 141, 170
Tennessee, Atlas of the Breeding Birds of, 170
Tern, Arctic, 58, 72
Tern, Black, 76, 103
Tern, Bridled, 58, 72
Tern, Gull-billed, 76
Tern, Sooty, 59, 66
Thompson, Simon R.B., 117, 123
Thrasher, Brown, 18, 23
Thrush, Gray-cheeked, 15, 103, 104
Thrush, Wood, 18
Titmouse, Tufted, 15
Tove, Michael, 49
Towhee, Eastern, 13, 14
Transylvania County, 101, 104, 124, 142
Tropicbird, Red-billed, 55, 71
Tropicbird, White-tailed, 35, 49, 55, 71
Tropicbirds, 65
Turkey, Wild, 12, 14, 15
Turner, Phil, 151

U

US 21, 76
US Fish and Wildlife Service, 63

V

Veery, 182
Vieques, 155
Vireo, Philadelphia, 23, 103, 104
Vireo, Warbling, 20, 76

Vireo, White-eyed, 18
Voice of America Site, 104

W

Wagner, Steve, 93
Wagtail, Black-backed, 149, 151
Wagtail, Citrine, 151
Wagtail, White, 149, 151
Wake County, 141
Warbler, Bay-breasted, 15, 21
Warbler, Blackburnian, 15
Warbler, Blackpoll, 12, 15, 18, 21
Warbler, Black-throated Blue, 15
Warbler, Blue-winged, 78
Warbler, Canada, 77
Warbler, Cape May, 13, 15
Warbler, Cerulean, 78, 104
Warbler, Chestnut-sided, 15
Warbler, Golden-winged, 78
Warbler, Lawrence's, 23, 78
Warbler, Prairie, 15, 18
Warbler, Wilson's, 77
Warbler, Yellow, 15
Warbler, Yellow-rumped, 19
Waters, Anne, 79
Watson, Elizabeth, 22, 120
Waxwing, Cedar, 76, 141
Whimbrel, 76
Whip-poor-will, 18, 21
White Lake, NC, 142
Wigeon, American, 102
Wilkes, County, 100
Wilkison, Patricia, 22
Williamsburg County, 78, 96
Winston-Salem, NC, 22
Wood Lake, 104
Wood-Pewee, Eastern, 13, 14
Woodpecker, Red-cockaded, 77, 104
Woodpecker, Red-headed, 13, 104
Worthington, Peter, 88, 155, 156
Wren, Carolina, 13
Wren, House, 21
Wren, Sedge, 21
Wren, Winter, 20, 102, 104
Wright, John S., 17, 122
Wrightsville Beach, 22, 180, 59

Y

Yadkin County, 142, 143
Yellowlegs, Greater, 38
Yellowlegs, Lesser, 15, 38
Young, Ruth E., 109

Z

Ziccardi, Anthony V., Jr., 183

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